

COMMODORE Network



Merry Christmas!

To All our readers

*From Warren Naismith, Artie Stevens, Jane Voskamp-Jones,
John Buckingham, Andrew Gormly, Kev Power, Heath Kirby
Miller and all the crew that bring Commodore Network your
way every month.*

Newswatch

LOADSTAR IN OZ

Well, the recent rumours of Loadstar's demise have proved somewhat misleading, as we revealed last month. This month, I am ecstatic over the announcement that this excellent disk-based magazine can now be subscribed to in Australasia. John Buckingham of JDB Software and our very own "Clublinks" column, will now be selling subscriptions and distributing the publication in Australia and New Zealand.

In the past, a years subscription has cost us U.S.\$129.95 (approx. \$180 Australian), but, with this deal in place, LOADSTAR can now be had for only \$120 Australian a year, a THIRD OFF the former cost. Naturally enough, I've made sure that Network subscribers are rewarded for all this free advertising John is getting, and you are entitled to a FURTHER 10% saving, shedding another \$12 from the cost to you, and meaning that you pay only \$108 a year as a subscriber to Commodore Network.

As an "opening special", John is also offering you the chance to get your first years subscription FREE. For the next THREE MONTHS, all new subscribers will go into a draw to win their first years subscription payment back - you could be that lucky person!

NEW PUBLICATION FOR THE SERIOUS PROGRAMMER!

While on the subject of good things happening, Commodore Network is pleased to announce that we are now distributing the "C64 - C128 - Plus/4 Cross Reference" compiled by Kevin Hopkins, Alvin Conrow, and Jim Hehl. This publication is an essential aid to those translating programs between these three platforms or to those who are just coming to grips with programming on one of these machines after using one of the others.

SAD NEWS!

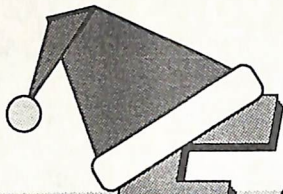
Long-time Commodore stalwart, Allen Crouch, has passed away! I dealt extensively with Allen through his P.D. library over the years, and always found him to be a most conscientious and personable fellow. His services will be sadly missed from the Commodore community.

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Editorial

Well, it's Christmas time once more, and one thing I must do before I get distracted by something else, and this poor decrepit mind of mine goes off on a tangent, is wish each and every one of you the very best of Christmas's and a truly prosperous New Year.

ON THE SCENE

This issue, we bring you a renewed "Demos" column titled "On The Scene" by Heath Kirby Miller. For those of you who have been with "Network" for some time, you will remember the former column written by David Stacey which folded when David had to give it up and a replacement writer couldn't be found. "On The Scene" will rely on input from Demo Scene members, so, if you are part of the scene, please help Heath wherever you can by keeping him informed of happenings and sharing "warez" with him.

LOADSTAR

After all the hullabaloo of recent months, it seems LOADSTAR is still with us to the extent that we have had the pleasure of announcing that it can now be subscribed to in Australia in this issue. Savings to the Aussie LOADSTAR subscriber are quite substantial, but never being one to be backward in coming forward, we have arranged even more of a saving for Commodore Network subscribers. You should find a LOADSTAR SUBSCRIPTION FORM inserted in this issue on which you can claim a further 10% discount on the current subscription rate for being part of C.N.. John informs me that he is working on being allowed to offer both three and six month subs in the near future.

Remember, there is a competition being run over the next few months in which subscribers have a chance to win their subscription payment back, so now's the time to subscribe!

NEW PRODUCTS

I've been boring you silly over recent months with regards to new products to be offered by C.N. This issue, I am pleased to announce the release of the "C64 - C128 - Plus/4 Cross Reference Guide". This is a must for serious programmers looking for a definitive source of information for the translation of programs between these three platforms, or are teaching themselves to program on one of these after having experience with one of the other platforms in the title. I don't envisage a huge number of sales, but I feel it is part of C.N.'s charter to make such things available to those that require them. The above item is supplied in a three-ring binder for \$27, post/packing included.

NEXT ISSUE!

As is our practice, our January issue will not only herald in a new year, but a new look for volume four. We will also welcome at least one new writer in Ross Buscall to our pages, and, of course, many of our old (and not-so-old) favourites will be back. Until then, take care, and don't enjoy the Christmas cheer too much!

Warney

A list of the known Aussie BBSes which support the C64.

All Australian C64 supporters should also show their support for these BBSes, and let the Sysops know that their efforts in looking out for us is appreciated!

GEOZ (03) 803-6498
Fishbowl (08) 277-1361
Way Out West (WOW) (02) 628-8888
Kev's (03) 543-4430
Talisman (03) 761-1037 & (059) 444-061
Pilbara (09) 419-2717 (Amiga/C64) & (09) 419-2226 (C64 only)
Brisbane Pinnacle (07) 341-9560
500cc (02) 550-6858
Space Station (047) 774-2739
C=Pursuit (02) 522-9144
SA Country Club (08) 284-7992

If there are any others, I'd appreciate knowing about them!

Ralphey. (Gomez/Menace.)

The World of GEOS



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and Disk

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C64 Public Domain (SA)
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Commodore Network Publications
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Commodore Network Merchandising

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This month, we review Colour GeoPrint by Roger Lawhorn USA, distributed in Australia by Malcolm Brumale SA, and follow up the latest happenings on the German GEOS scene that couldn't be squeezed in last month.

Colour GeoPrint

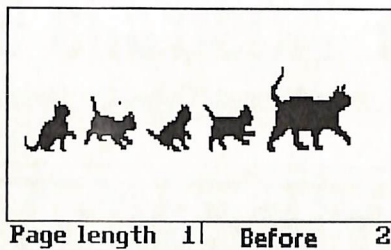
Using GeoPrint you can now create banners, posters, greeting cards, and a wall poster, all without leaving GEOS!. Previously CBM users had to use Print Shop {tm} or PrintMaster {tm} to achieve these aims, which was a pain when some of our best graphics are in GEOS. The author of GeoPrint has even catered for users who have 60dpi {Commodore compatible}, or 80dpi {Epson compatible}, which is a thoughtful consideration. Those users with 60dpi are therefore not left out of the fun.

To review this GEOS64/128 40 column program, I used the 80dpi geoPaint Printforms provided, with my MPS1250 in Epson mode, but unfortunately I could not test the colour option {sigh}. GeoPrint appears to be SO complicated, and at times almost daunting, in the documentation, but in practice it was not that difficult, once I got going.

I am not going to re-write the instructions here, even though it might help, but what I want to do is show you some of the graphics that resulted from using GeoPrint. I discovered that GeoPrint is compatible with the 'Paint Pages' driver. So, after testing all the options out to paper, I changed to my Paint Pages driver, and separately printed a banner, a poster, and a greeting card to RAMdisk as geoPaint pages. I have selected a graphic from each to follow, and I will refer to these graphics as we go along, so that if you are interested in purchasing this innovative package, you will know what to expect.

The first graphic is of a mother cat and her kittens, placed onto the banner area

of 'Printform A 80'. Notice the very tiny single pixel dot above the second kitty from the left. I want you to watch what happens to this pixel as we check out each option. By the way, I simply placed the same graphic into the other designated printing areas on the Printforms as required, but for the purposes of this discussion, I have concentrated on showing just this one little kitty with the pixel dot for easy reference.



Banners

The first option I tried out was creating a banner. This graphic shows that the program has automatically, and effectively rotated and enlarged the graphic prior to printing. Notice that the kitty is VERY chunky now. Where it was pixel perfect before, it is now blocky and chunky, and the pixel dot has become 8x8 pixels, or a geoPaint card in size.



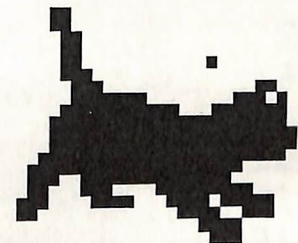
My initial reaction to this was not what

I would call good, but after having the two page banner held about twenty feet away, it did look quite effective. The eye sort of smoothed out the chunkiness and a good banner was the result. As banners are meant to be viewed from a distance, and not close up like we are here, it was deemed suitable. What you would need to realise is that this chunky effect will also happen to any text you write with GEOS fonts. So a fancy font like Dwinelle would suffer badly, but a font like California, with crisp lines and not too many diagonals would probably look okay.

Prior to printing out your banner, set the printhead approximately one pixel width, from the perforation. In other words, don't move the page down at all!. The banner is printed across perforations until the number of pages you chose to print {1 - 12} is finished. Believe it or not, you can make a banner twelve pages long if you want, just right for those big occasions !.

Vertical Poster

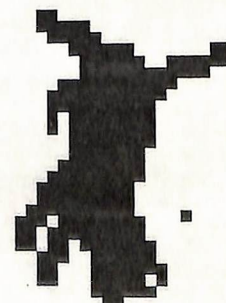
This graphic shows that the program has automatically, and effectively enlarged the graphic accordingly. Notice that the kitty is still a bit chunky. It is blocky but not as bad as in the banner, and the pixel dot has become 4x4 pixels in size. The poster is one printed vertical page.



Vertical Poster

Jane Voskamp-Jones

Horizontal Poster



Horizontal Poster

This graphic shows that the program has automatically, and effectively rotated and enlarged the graphic accordingly. Notice that the kitty is still a bit chunky. It is about as blocky as the vertical poster, and the pixel dot has become 4x4 pixels in size. The poster is one printed horizontal page.

Prior to printing your posters, position the print head about 1.2cms from the perforation to centre the printout properly.

Greeting Cards

This graphic shows that the program has automatically, and effectively flipped and rotated the front of the card, and enlarged the graphic accordingly. The graphic on the inside of the card is simply enlarged prior to printing. Notice that the kitty is less chunky than in the above poster options. It is not as blocky, and the pixel dot has only become 2x2 pixels in size.



Inside Card & Outside

Before starting to print out your card design, position the printhead of your printer about 1.5cms down from the perforations. This will centre the card, enabling you to fold it into a card right away, when it comes off the printer. GeoPrint really is innovative - flipping, rotating as well as enlarging is quite an amazing feat for a program {imagine the math routines needed for that} !.

I was very intrigued by the greeting card option. Having already designed the CARDart Series and the new CARDart Series 2 {**}, I wondered how GeoPrint would tackle the cards, with half of the card being upside down. But it worked fabulously, even conceding the slight blockiness inherent in the option. GeoPrint 'flipped' and rotated the outside front of the card design prior to printing. Will 'I' use it for cards though ?, actually no, I'll stick to the CARDart Series' with their GREATER flexibility and FUN.

A Word or Two on Ratios

The above experiments show the convenience of GeoPrint. In each of the options, the original graphic was

used on the geoPaint Printform. I did not enlarge or rotate, or flip anything {even for the greeting card}, the routines within GeoPrint handled all of that complicated stuff. But to offer this kind of convenience, GeoPrint must 'blow-up' or 'magnify' the design to cover an entire page. To understand how your final print-out will look, it is helpful to understand the enlargement ratios that follow ...

Greeting cards 1:4

Horizontal and Vertical Posters 1:16

Banners and Wall Posters 1:64

The largest ratio is used for the wall poster and banner. This means that each tiny pixel is 'magnified' 64 times !. The wall poster option works upon whatever geoPaint page you have chosen to print, {I didn't try this out as my printer was already overheating}. Sometimes though, you will want to avoid the 'blocky' look, as when printing a message within a greeting card. As GeoPrint is compatible with the Paint Pages drivers, you can send your greeting card to a geoPaint page. You can then edit it from geoPaint and add your message with 'true-to-size' GEOS fonts. The down side of this concept is that printing to geoPaint pages will only work with the greeting cards and single poster options, banners and wall posters are out !.

More Than Black and White

In addition to what you have seen that GeoPrint can do, it can now print in colour, in all the modes discussed !. It goes without saying that you must have a colour printer and use the correct driver. To use the colour printing option, you simply toggle it on from the options menu. On the down side, colour printing can take a long time. But wait, there's more, GeoPrint can also 'pattern print'. There is a pattern option that allows you to choose any of the 32 geoPaint patterns when printing banners or posters. This can make your designs more interesting that a printout of black boxes !.

One confusing area in the documentation is the reference to "What's on 'white' will print all right". Meaning that the design areas are all positioned on a white background to make it easier to place your design. The confusing part is that the design areas on the Printforms are 'green' !. What do they mean ?, it's got me beat, and I even worked in geoPaint

40column mode to see the colour, gasp !.

Synopsis

If you always wanted to print REAL banners and posters from GEOS, then GeoPrint is definitely for you!.

GeoPrint and GeoLabel come together on the 1541 floppy disk for the one low price. The package is distributed in Australia for A\$33:00 {overseas orders add A\$2:00 S&H} by Malcolm Brumaley 4 Barbara Avenue Morphett Vale South Australia 5162. The disk is very well presented and, when ordering, specify the version of GEOS v2 that you use, 64 or 128.

The German Scene - Updates

Our correspondent on the German scene, Michael Renz, is providing information and the latest happenings of GEOS in Germany. Commercially, GEOS64 v2.5 is now available, but is only available in German. An important news flash is that the German GEOS fanatics are working on a patch that makes it possible to upgrade GEOS 2.0 64 & 128 {80Col} to version 3.0. This patch will also include a small program so the user can choose which language the new GEOS version will 'speak'. The patch may be finished by the end of the year. We will keep you posted on developments.

A C64 mode program for the C128, called 'goDOT' by A. Dettke & W. Kling - a graphic image processor which allows the possibilities of converting foreign graphic formats and manipulating them. There is also a wedge in the program to import the graphic to GEOS [but I couldn't find it on the demo], and goDOT has many more features. goDOT supports 64K VDC RAM, 1750 REU, 1571 disk drive - up to four disk drives. Actually, it will not run on a C64. A PD demo version is provided, it operates from joystick port 2, and it really seems to be a very intriguing program.

Flash 8, is a commercial speeder card for the C64 which improves loading times to that nearing a 386PC !. It will apparently also run under GEOS with a GEORam or BBGRam. Flash 8 is 256K expandable to 1MB, but at this size it won't work together with RAM units. geoKeys is a commercial program to allow the connection of a PC keyboard to a C128 or C64 under GEOS. This is apparently up and

running and reputed to be very good !. geoCOM 1.5 is a new commercial Programmer/Compiler for GEOS, but at the moment the instructions are only in German [translators come forward !]. A PD demo version of geoCOM is provided.

The German PD demo versions mentioned above will be passed along for the CN GEOS disk.

Readers Three Wishes And All That ...

From Rick Coleman of Wyoming USA, "I'm enjoying reading your articles in CN. I think you hit the nail on the head in the first article [June 94] about GEOS presenting TOO MANY ways to do things. Personally I think that is the best part about GEOS. I love figuring out the best way to do something, should I use geoWrite, geoPaint, or geoPublish for this or that. But when I try to show someone how to use GEOS their eyes glaze over when I start telling them they can click there or use the menu or the short cut to do something. And heaven forbid if you tell them there are over six alternate system controllers [deskTops] !. Oh Well ... ;)."

Gg. Thanks for your feedback Rick. I agree with everything you have said there, I have seen that 'glaze over look' myself !. It is worth our remembering how hard it was to start with GEOS. I have found that it is better not to overwhelm, but rather to encourage the beginners own imagination.

From Wendy Currie of Kiah NSW, "Dear Genie, I think your column is great. I read with glee about an 'older

user from New Zealand. I too started late and {to me}, are rather slow in working out my computer. I still feel it will stop or break if I do the wrong thing to it. But, I am slowly finding out this is not so. I love GEOS, but still have a long way to go. Your column gives me help every now and then. Thank you".

From Bodo Schwarz of Bulli NSW, "Keep up the good work with your GEOSgenie column. I enjoy it, as Warren might say, a 'must read it' item in Commodore Network".

From Merv Carroll of Everton Park QLD, "Congratulations, and thanks for your articles in CN. At long last I am just beginning in GEOS".

Gg. Thanks for writing Wendy, I am glad to hear that I can help in any little way. Gosh, thanks Bodo, and, your welcome Merv. I am really glad that you like my efforts so far. [Would you really say that Warren ?. [sheepish grin]]. Ed - Yep! You bet!

Gg. Responding to Jane Petrie of Warrnambool VIC, comments in the Letters Link of CN Oct94. Thanks Jane for your comments regarding a female Genie logo. I confess, it was I who made up the Genie and lamp picture, and since harem costumes and veils have never been my kind of clothes, I thought this composite graphic I put together would do nicely, at least you did get the impression of a Genie. Thank goodness Artie included my picture [although flipped on the x-axis] in the column, so you can at least see that I don't have a beard !. [Warren, you're so cheeky, me pose like that, Hmph! not likely !!!]. Even husband David says, "I'd like to see that !".

There went your much needed holiday leave Warren [grin]].

The following address change should be noted for last months [Nov94] review of Michael Pearsons two 'Fonts for GEOS' Disks. Please direct any Australian orders to Malcolm Brumaley 4 Barbara Avenue Morphett Vale South Australia 5162. We apologise for any inconvenience that the change in address may have caused. Thank you.

Next month, we review GeoLabel and SuperBox by Roger Lawhorn, distributed in Australia by Malcolm Brumaley SA. We also check out the latest happenings on the GENIE BBS from Rick Coleman USA. Until then, happy GEOSing.

Send in your comments, or great GEOS discoveries, and I will respond when I can in this column, unless you wish a private reply, in which case please send a SSA{Business}E and I will write you back. Special thanks to Rick Coleman {Photo Mover fame}, our USA GENIE BBS correspondent for your continued support, and to Michael Renz {Performance Peripherals Europe}, our German correspondent, for your continued support.

CN GEOSgenie
PO Box 635
Blair Athol 5084
South Australia

{**} The CARDart Series, the new CARDart Series 2, and The World of GEOS HandBook Series {I, II, III}, are currently available from JMV Grafix

CN



This publication reviews many excellent programs created by individual GEOS Authors

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 Arthur Stevens
 (018) 58-15-58



Well another year has gone and again it's time to put in our orders to Santa for some new software or hardware.

What a great year it's been for 64/128 owners. Heaps of new software, both commercial and PD, and some tremendous new hardware has been released. Rumours that the 64 is back in production still persist. Disk magazines such as "Loadstar", "Compute Gazette" and "Cee-64 Alive" are still going strong. The 64/128 clubs and user groups in the States are increasing memberships. Clubs and user groups are the link between users and software/hardware suppliers. There are still in excess of 10 million C64's out there and a great majority of these are still being regularly used.

Over the past couple of months many clubs will have had their AGM's resulting in a few new faces on their committees. Congratulations to all those new committee people and thanks to those who have served up until now on committees. Without the time and effort these members devote, many clubs would certainly fold.

Judging of your newsletters is now finished. Warren has had a very hard time judging them. We've been impressed with the quality of many of them. The results are elsewhere in this column.

I have been informed that at their last

AGM held recently the Waikato Commodore Computer Users Group decided to go out of existence as a formal group. Sad news for those users who live in the Hamilton area of New Zealand.

There still appears to be problems with the Canberra group so its future is still up in the air. Hopefully the problems will be sorted out soon and the club can get back to running again.

Even though the newsletter competition is over keep sending them to me as I enjoy reading them. The address for this column is PO Box 244, WARILLA NSW 2528.

Bye till next year,

BUCKY

**NEWSLETTER
 COMPETITION
 RESULTS**

from Warren

Whew! What a time I've had judging your newsletters. There are some truly fine efforts out there amongst the clubs.

What I've done is divided the competition into two categories, one for those clubs which cater for other computer types, and one for those that are specifically 64/128 oriented. I had

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to do this as the point system I used was heavily weighted for 64/128 content, and naturally, a publication exclusively produced for 64/128 users is going to hold a larger percentage of information pertinent to these machines and their users than a publication which must be shared with other formats.

The points were allotted like this:

Percentage of 64/128 material X 2 - this did not include editorials, treasury reports, or other articles specific to club management.

Percentage of articles pertinent to that specific club X 1 - this includes those articles not covered by, but mentioned in the above.

Percentage of "in house" articles from category one - I think a big part of any club publication is the input it excites from it's members.

Layout - out of 100 points - purely subjective!

Production - What the finished copy came up like - points out of 100.

Article quality - all 64/128 articles were read and adjudged for quality of information, NOT writing skill or style. A score of up to 20 points was then awarded for each item and took in to account both length and depth of coverage.

As you can see, I've tried to weight judgement on not only quantity, but also quality of information, and member participation. In all cases, I've tried to be as subjective as possible.

Judging was carried out over several issues and points averaged.

PRIZES

First prize in both categories: Club subscription to the new look Commodore Cee (ex Cee-64 Alive!), plus a years subscription to Commodore Network. Both will begin as of January 1995. Clubs already subscribing to C.N. will have the extra twelve issues added to the end of their current sub.

Second prize for both categories is a copy of "Risers & Sliders" or a \$30.00 voucher from JDB Software to go towards a purchase from their range. Clubs are free to raffle or auction these items as they wish in order to raise funds.

WHO WON WHAT?

FIRST PRIZE - C64/128 specific clubs - "8-Bit", from Woombug - Editor: Scott Roseboom.

COMMENTS: Probably the most professional looking of the newsletters in this category. It's strength was its presentation, giving it the edge over strong challenges from "Big-Byte" and "Commodore Capers".

RUNNER-UP: "Big-Byte", Commodore User Group of Wollongong (C64 Developments, Inc.).

Editor: Jeff Gale.

COMMENTS: Member participation was the strength of this publication, snatching the points from "Commodore Capers" of the C64/128 Club of N.S.W.

NON-COMMODORE SPECIFIC - FIRST PRIZE: "Newsletter", South Australian Commodore Computer User Group. Editors: Nat and Ivor

COMMENTS: The highest C64/128 content and in-house input of any of the publications in this class.

RUNNER-UP: "Newsletter", Commodore User Group (ACT). Editor: Ted Woodwell

COMMENTS: Unsure of the current status of this group. If it is defunct, second prize will pass to "Borderline" from the Albury Wodonga Commodore Users Group, Editor Laurie Tanner (the difference was only five points).

GENERAL COMMENTS:

Make sure YOUR club continues to send its newsletter to either John or myself (or both), as we intend to make this an annual event. Congratulations go to each of the clubs concerned for having the quality of editor that they have, and to the editors themselves. Especial congratulations go to Woombug, Wollongong, and SACCUG for the amount of C64/128 member input displayed, to SACCUG for the amount of Commodore 8-bit coverage in a "mixed" newsletter, and to Melbourne, Canberra, SACCUG, and Woombug for the continued quality of articles.

CLUB LIST

This is a list of some of the user groups in Australia and New Zealand that cater for members with 64's or 128's. If you want any information or details about the club contact the person listed or write to the address shown. There is also a list of mail/postal groups as well. If you write to a club please enclose either a stamped self-addressed envelope, a stamp or reply coupon for your reply. Remember that school and public holidays can affect meeting dates. ALWAYS check with the club contact first.

AUSTRALIA

Albury/Wodonga Commodore User Group Inc., PO Box 1014, ALBURY NSW 2640 - 1st Tuesday 7.30pm Gas & Fuel Corp Building, Hume & Townsend Sts, Albury - Rod Graeber (060) 21 3703

C64 Developments Inc. (Wollongong C64/128 Club) PO Box 150, UNANDERRA NSW 2526 - 2nd Friday 6.30pm Unanderra Community Centre, Princes Highway, Unanderra - Jeff Gale (Secretary)(042) 71 5098

Commodore 64/128 Club of NSW (formerly

Penrith Commodore Users Group - now incorporating SYDCOM) 12 Budgeree Rd, TOONGABBIE NSW 2146 - 3rd Wednesday 7.30pm Minchinbury Neighbourhood Centre, Minchin Rd, Minchinbury - Steve Stecyk (President)(02) 631 2323

Commodore Hornsby User Group Inc., PO Box 1578, HORNSBY NORTHGATE NSW 2077 - 2nd & 4th Wednesdays 7.30pm St Leo's College, Wahroonga - Allan Hall (02) 476 4929

Commodore User Group (ACT) Inc., PO Box 409, CURTIN ACT 2605 - check for Canberra meetings' dates and venues. - Batemans Bay meetings 3rd Saturday Pearly Beach Baptist Church Hall - phone Matt Blydenstein (06) 281 2714 for all information.

Muswellbrook Combined Computer Group, PO Box 648, MUSWELLBROOK NSW 2333 - contact Jim Shorter on (065) 47 9144 for meeting details.

Newcastle Commodore Users Group, c/- 22 Copeland St, LAMBTON NSW 2299 - phone George Morrison (049) 57 4271 for information.

Tuggerah Lakes Commodore Users Group, PO Box 659, TOUKLEY NSW 2259 - phone John Davies (043) 93 1921 for any information.

Melbourne Commodore Computer Club Inc., PO Box 177, BOX HILL Vic 3128 - 2nd Wednesday 7.30pm Courtyard Room, Nunawading Civic Centre, Whitehorse Rd - Bernie O'Shea (President)(03) 438 1625

Yarra Valley Commodore Users Group, c/- 13 Cumberland Cres, CHIRNSIDE PARK Vic

John Buckingham

3116 - 1st Tuesday 8pm Lilydale Elderly Citizens Club - Theo Hristakos (03) 735 5310

South Australian Commodore Computer User Group Inc., PO Box 427, NORTH ADELAIDE SA 5006 - 1st & 3rd Mondays 7.30pm North Adelaide Primary School- Phil (08) 381 8444

Southern Districts Computer Users Club Inc. (Adelaide), 4 Barbara Ave, MORPHETT VALE SA 5162 - 3rd Wednesday 7.30pm Home Economics Room, Christies Beach High School (West), Beach Rd, Christies Beach - Malcolm Brumale (08) 382 8614

Computer Club of WA Inc. (Perth) - phone Tom Lee on (06) 332 6374 for all enquiries.

Cairns Commodore Users Group, PO Box 7, EARLVILLE Qld 4878 - 1st Tuesday 7.30pm Cairns Education Centre, Greenslopes Road, Edge Hill - Bruce Bimrose (070) 54 1949

Commodore Computer Users Group (Qld) Inc., PO Box 274, SPRINGWOOD Qld 4127 - 1st Tuesday 7pm Bardon Professional Centre - Gordon Wright (07) 299 7789

Woombug 8-bit - 4th Saturday 1pm - 4pm Tea Room, Masons Hall, Hill St, Woombye - Scott Roseboom (074) 48 5845

Tasmanian Commodore Users Group, GPO Box 673, HOBART Tas 7000 - 3rd Wednesday 7.30pm Derwent Regional Library, Glenorchy - Stephen Cook (002) 47 9985

NEW ZEALAND

As well as from the clubs listed below information regarding any clubs can also be obtained from Jim Mullen, 110 Main South Road, OAMARU Phone (03) 434 7655.

Christchurch Commodore Users' Group Inc.,
PO Box 4665, CHRISTCHURCH - 4th
Tuesday 7.30pm Philipstown School - Dave
Maguire (03) 348 5976

Kapiti Commodore Users Group, 24 Makarini
St, PARAPARAUMI - 1st Friday 7.30pm
Kapiti College, Margaret Rd, Raumati Beach
- John Hughes (04) 298 4349

Manawatu Commodore Users Group, 83
Havelock Ave, PALMERSTON NORTH - 1st
Monday 7pm St Marks Church Hall - Sydney
Mounsey (06) 357 9858

North Otago Commodore Users Group -
contact Jim Mullen on (03) 434 7655 for any
information.

N.Z. Commodore Users Group Inc., PO Box
2878, WELLINGTON - contact Neville
Lockett (04) 470 4707 for details concerning
meeting times and venues.

Otago Commodore 64 Club (Dunedin) -
contact John Knight 26 Estuary Crescent
Fairfield Dunedin

Waikato Commodore Computer Users Group
- now disbanded

Whangarei Combined Computer Club -
contact John Pitt (09) 438 6651 for all
information regarding this club.

POSTAL GROUPS

All these groups are mail based groups that cater for those users who are not able to attend a normal club or want to join a second club. Most provide a regular newsletter and give you access to PD programs and program information as well as give you the opportunity to meet other members through correspondence or phone contact.

GeoCLUB (GEOS users) c/- Peter Hunt 70
Betula Street, DOVETON Vic 3177 -
Frank Cassidy (03) 791 4991

Hills 64 Group C/-, PO Box 48,
COCKATOO Vic 3781 - Ivan Blitz

Plus4/C16 Users Group 36 Western
Highway, BLAXLAND NSW 2774 -
Tony Ellis (047) 39 1528

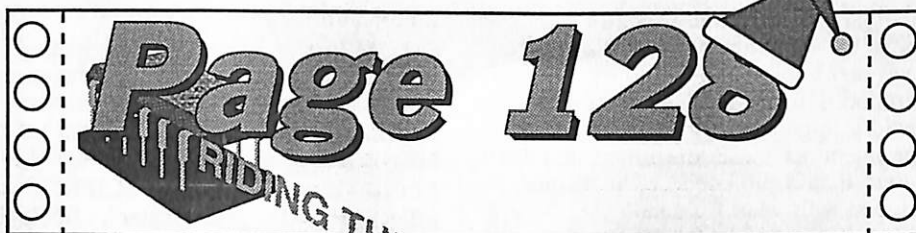
The Old Codgers (over 40's) 18 Windsor
Street, EDGEWORTH NSW 2285 -
Gordon Screen

The Right Direction User Group 2/9 Reid
Street, MOONAH Tas 7009 - Shane
Boswell

Woombug 8-bit c/- Post Office,
WOOMBYE Qld 4559 - Scott Roseboom
(074) 47 9985

Meeting 64/128 Users Through The Mail
1576B County Road 2550E, ST JOSEPH
IL 61873 USA - Jean Nance

Many regular clubs can also cater for postal or associate members as well. In most cases out of area members would be most welcome. Check with your local club.



Last month we started with a look at the 128's serial bus. Much of what we discussed was applicable to both the C64 and the 128. though much of what we have to say in this instalment is also applicable to the 64, we will also look at "fast" mode on the serial bus.

The serial bus transports data to and from the computer over the bus to a specified stop, much like a bus you may take to work or shopping. Each of these stops is a specific device identified by its device number.

THE BUS

Our Commodore (whether 64 or 128) is equipped with a serial bus that has been stripped down from similar buses used on Commodore's earlier computers. These buses originally had some 24 lines, but the Commodore 64/128 bus supports only six. Two of these six (CLK and DATA) are quite capable of simulating or replacing those pins removed from the larger bus. Let's take a look at the serial port and the six pins that go to make it up. these are configured like so:

1) SRQ - This is the Service ReQuest line and is used to signal the controller that a task has been completed and new data is needed, new data is ready to be sent, or another action is to be performed. It also initiates an identification cycle by means of EOI or ATN in order to determine just which device is in use. This is not used on the Commodores.

2) GND - GrouND

3) ATN - ATtention. When the controller wants to send a command, it activates this line. The bus must still determine exactly which device it is dealing with, and this is done when the device address is transmitted. Once the address is transmitted, all devices not addressed get off the bus.

4) CLK (in/out) - CLoCK. With data travelling through the bus bit by bit in serial and not parallel, the TALKer sends a CLK pulse along with each bit. This indicates the validity of the data line.

5) DATA (in/out) - this is the sole data line over which all data is transmitted. This is moved with the lowest byte first.

6) RESET - resets the connected

devices.

FAST BUS TRANSFERS

The C128 in both native and CPM modes, and in conjunction with a 1571 drive/s, can take advantage of a "fast" transfer speed capable of up to eight times the speed of communication normally experienced whilst using 64 mode and/or a 1541. This is achieved by utilising that otherwise unused SRQ line as a fast bi-directional second CLK line.

On power-up, our 1571 is always in "slow" mode so that it may be connected to, and used by, a C64. The user can easily specify "fast" mode operation, which will remain active until it is disengaged. Kernal routines built in to the C128 can recognise and act upon "fast" and "slow" modes via the setting of a special flag within the kernal which indicates whether the current peripheral device is set to "fast" or "slow" operation. A 1541 is always set to "slow".

In order to declare our 1571 as a "fast" device, we must send what is termed an HRF (Host Request Fast) signal along the SRQ line. We do this by sending a spurt of eight clock pulses. The 6526 in the 1571 recognises the signal and generates an interrupt which sets the flag to indicate its fast mode operation.

Mario Petrolati's

If a device is a LISTENER, and is receiving data, it sends a DRF signal (Device Request Fast), which allows our computer to recognise that that particular drive can send or receive data in the fast mode. Of course, a 1541 cannot send this signal.

Our fast mode flag can be reset with the following:

UNLISTEN
UNTALK
a bus error
or
<RUN/STOP><RESTORE>

MULTIPLE DEVICES

As we all realise, it is possible to connect a number of individual peripherals to the bus. The variety of devices can include a number of drives

Commodore Network

Published in Australia by
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and a printer. Naturally, we need to be able to identify each individually so that data can find its way to the correct destination, and can be sourced from the right drive. I am positive you are all at least familiar with drive numbers and the like. How many times have you typed in that universal LOAD "filename", 8, 1, or, perhaps a SAVE "filename", 9, 1. In both cases, the first numeral is the device address. We first load a program from device 8, and then save a program to device 9 in a two drive system. Our Commodores assign device addresses like so:

- 0-3 Internal devices like the keyboard, screen, user port, and cassette port.
- 4-7 our printer
- 8-11 disk drives
- 12-30 not in use

Our device address contains additional information on the action which is required to be performed, such as the following:

32 - the device addressed is a LISTENER, which means that it will receive data. This is similar to BASIC commands PRINT # or DSAVE.

64 - this device is a TALKER, meaning that it will send data. BASIC commands of similar use include INPUT# and DLOAD.

48 - The device will no longer LISTEN (UNLISTEN). The lower half-byte of the address is always 15.

80 - This device will no longer TALK (UNTALK). The lower half-byte of the address is always 15.

In order to illustrate this, if you are addressing a printer (device 4) in order to perform a print-out, the entire device address would be as follows: 32 + 4 = 36 (\$24).

SECONDARY ADDRESSES

With the device address selected, we use a secondary address to indicate which mode we wish to operate in. For instance, on Commodore printers, a secondary address of 0 will select uppercase/graphics mode for printing,

whilst a secondary address of 7 gives us access to upper/lowercase printing. On disk drives, the data channel is manipulated via the secondary address. The following values are used along with the actual secondary address to indicate in which connection the secondary address occurs:

- 0 - PRINT, INPUT, or GET
- 1 - CLOSE
- 2 - OPEN

Used in connection with a 1541, the following secondary addresses have the indicated meanings:

- 00 - PRG type - read data channel
- 01 - PRG type - write data channel
- 02-14 - Channels for all file types
- 15 - Command channel

ERRORS

When peripherals are connected, errors can naturally occur. The system variable ST is used to hold information on the last action performed via the serial bus, indicating its success or otherwise. If the operation was not successful, one of the following values will be held within the variable:

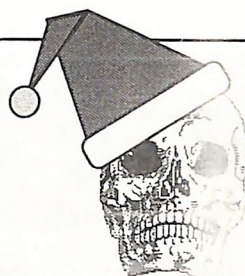
1 - occurring after an OPEN or PRINT statement, this indicates that no acknowledgement was received via NDAC within the allotted time.

2 - occurs during an INPUT or GET if the device addressed as a TALKER does not respond by sending a byte within the allotted time frame.

64 - the byte last transmitted was sent in conjunction with an EOI (End Of Information), indicating the end of a file.

128 - the addressing attempt produced no reaction from the required device. In BASIC, this would produce a "DEVICE NOT PRESENT" message.

We can experience a combination of these values occurring. In BASIC it is advisable to not read the absolute value but to access the appropriate bit. In cases where information must be received within an allotted time frame, the period is 64 milliseconds.



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All back issues from Volume #1, issue #1 right up to the present are also available at \$3.50 each. This is for the magazine only. Back issues of the Disk-Coverer disk are available separately for \$2.50 a copy.

International Commodore discussions are carried on the
CBM CBM-128 & CBM-GEOS mail echos
Nationally on 64 Talk
Check your local BBS for these echos and PARTICIPATE!

Access them now on
GeoZ, Talisman, WOW, Brisbane Pinnacle, Pilbara Amiga, The Space Station

Letters Link

Howdy, folks. Welcome to another month's "Letter's Link" column. To start off on a good note, here's some good news from John Buckingham regarding Loadstar.

LOADSTAR IN AUSTRALIA/NEW ZEALAND

I have just received the news that I have been appointed the distributor of "LOADSTAR" in Australia and New Zealand.

This is good news for present and potential subscribers as regards the price of subscriptions within Australia and New Zealand. The previous rate of US\$129.95 (approx. Aust\$180) for an Australian subscription was too much but now the rate is only Aust\$120.00 per year which means only \$10 per month. I'm sure you'll agree that this is quite a fair price for the most popular 64 disk magazine in the world.

For the next three months all new subscribers will have the chance to receive their disks for free for a year. All subscribers will go into the draw and the winner will have the

subscription price refunded. So someone will receive "Loadstar" for a year for nothing. Also "Commodore Network" subscribers can get their subscription for only \$108, saving 10%.

Unfortunately, at this stage, I am only able to offer 1 year subscriptions but hopefully in the not too distant future there will be a choice of either 3, 6 or 12 months.

I hope you can pass on this good news to your subscribers.

Consider it done, John!

If any of you out there wish to subscribe to Loadstar, and you subscribe to C.N., you can take advantage of still further savings by subscribing to Loadstar through John. See the relevant News Watch article on the front cover!

DWEEZIL AND NEW TOOLS

Still in N.S.W., and Paul Williams writes in part:

The Dweezil disks, New Tools II, etc., have always interested me - are they

128/80 column compatible do you know? Is someone distributing them in Oz?

For those unfamiliar with these, they are GEOS programs. CMD have recently began selling these and have taken over the rights, so it may pay to contact NOVO for further information. To the best of my knowledge, neither work in 80 column mode.

SOFTWARE THAT WON'T WORK

Moving north to the vast expanses of the Northern Territory, and in tropical Darwin John Lechmere writes:

I currently own a Commodore 128 computer which I am using for word processing purposes. At this time I own three word processing programs for my 128. The problem is that two of these programs are old and will not load into my computer.

I have had my 128 checked out, and it is fine.

There are many reasons why disks and/or disk-based software may become unusable. Corruption may occur in the actual data stored on disk, the disk may become warped, or you drive may become mis-aligned, making accessing of some disks impossible. Having the original programs, you can take advantage of one of our "Help-Line" personnel in Doreen Horne, who will attempt to correct any corruption in data for you. Doreen will work ONLY with original disks, and, naturally enough, is not God, so give her time and she'll do her best.

If the fault lay with warped or buckled disks, there is a simple way around the

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problem. Simply cut carefully along the very top edge of your faulty disk using a sharp knife until you have access to the media inside. Remove this from the disk casing using TWEEZERS or similar. UNDER NO CIRCUMSTANCES DO YOU USE YOUR FINGERS! - no matter how clean, these will leave traces of grease, sweat, or other foreign substances which may make data stored on the media inaccessible, and, if you're going to this much trouble, the disks obviously important! Take note of which side of the media is the front of the disk, and place this on the bench face-up. You won't do any harm by putting the media in back-to-front, the disk will just be unusable. You will then have to remove the media again and flip it before replacing it back in the cover

Once the media is removed, take a straight disk and perform the same operation on it, removing the media. Now slip the media from the first disk into this new unbuckled sleeve. This should ensure access to the data on the diskette, but it is best to load up a reliable copier and copy to a new disk, reserving your cut sleeve for future use in saving valuable data.

This method costs you a good disk, but it sure beats the heck out of spending \$20 or \$30 dollars on a replacement.

The last of the mentioned causes for lack of data access is drive misalignment. This is best dealt with by a qualified technician or someone with the experience and knowledge to tackle the task. There are a number of pieces of software about that claim to help in this task, but I have found them of little value. It is possible to do it yourself, in fact I handle this facet of maintenance of my equipment myself, but it is tedious, and, for the inexperienced, highly aggravating (or perhaps I'm just impatient!).

WHAT IS AN REU AND MOUSE?

And now, for our first "Letter's Link" input from South Africa, and Jakob van der Sloop writes:

I am somewhat new to the serious side of Commodore computing, having had my C64 given to me some years ago on my 15th birthday. Games have been the life-blood of my computing interests, not only because I love playing them, but also because what little software I could find was always of that variety. I can not recall ever seeing a piece of serious software (or hardware for that matter) advertised over here for the C64.

Until I received my first (complimentary) copy of Commodore

Network, I did not believe that the C64 could be used for anything other than playing games, and I am still very much astounded that such a thing as GEOS apparently exists (I have never seen or heard of it before C.N.!) And, as for hardware, well, I am a little lost. You see, I have no idea what a RAM expander is (is it something you Australians use to make extra large sheep?), or a mouse?, and what is an REU? Sorry if I am being foolish, or showing my ignorance, but there is just so much I don't know!

I have been a subscriber to C.N. for six months now, and it has taken this time for me to get up the nerve to write. This is something I have never done before, so I feel you must be doing something right to entice me out of my hiding hole.

Thank you for your letter, Jakob. It certainly was an education. We in Australia have tended to take our relative "wealth" in the availability of Commodore items for granted in recent times. True, we do not have easy access to a lot of items like the Americans and Europeans do, but we certainly don't seem quite in the same situation as you there in South Africa.

As for your "ignorance", I don't know about anyone else, but I can certainly relate. It's not that long ago (it seems) that I first started out. We all learn at some time or other, and if C.N. can help you in that learning, then I for one am happy!

Now, let's look at a few of those "what is it" queries. A RAM expander and an REU are one and the same. REU stands for Ram Expansion Unit. These effectively add "room" to your computer in which to store programs for almost instantaneous recall and use. Probably the best way to think of them is as a super-fast disk drive. Even the largest program is up and running in seconds. Most units of this type contain "volatile" memory and programs stored will disappear when the power is turned off and will need to be re-loaded from disk into the REU when starting a new session. Some units, like RAMLink for instance, come with a battery back-up which means that the computer can be turned off and that anything in RAM will stay put until the next time the system is turned on. GEOS benefits immensely from these.

A mouse is, to put it extremely simply, another type of joystick. Instead of moving a handle back-and-forth, to-and-fro, to move your character around the screen, a mouse utilises a "ball" set in the bottom side of the unit. This ball rotates as you move the mouse across your desk top, somewhat like a wheel rotating beneath the unit,

and the amount of rotation is read in and used to tell the computer how far left or right, up or down, you have moved. that's pretty damn simplistic, but I hope you get the idea. There is an upcoming review of the new CMD trackball coming up in a "Showcase" column, and there should be reviews of two new mouses (mice?) in upcoming editions of C.N., and these should give you a little more info.

Lastly, I liked that line about enlarging sheep (wish I'd said that!), but we really don't do that sort of thing here in Australia. We actually concentrate more on beef production. You see, whenever we want to increase the size of male cattle, we hold a multi-party political convention - and end up with more bull than we can handle!

(Artie: - GROAN!)

WHERE CAN I GET AN REU?

OK, back home in Oz, and to beautiful Tasmania where Phil Thompson writes:

Just received my first copy of Network, great publication, good to see the support for the old 64 is still strong. Being relatively new to uses for the 64 other than game playing, I have just picked up a copy of GEOS 2.0 and it mentions a RAM expansion unit. Are these still available?

I have also thought about getting a 128, but I do not know much about them (i.e. do the cassette, disk drives, printer, and cartridges (Action Replay, Expert, etc.) that work with the C64 work with the 128? Does the 128 speed up GEOS?

Well Phil, you'll be pleased to know that almost everything you have for your C64 will work on the 128. The only exceptions may be some software and/or hardware, but I have yet to come across anything much. Certainly, all the hardware you mentioned will have no trouble adapting since they are all made for use both systems. Speeding up GEOS is another matter. GEOS 128 runs quicker than the 64 version, but use the 64 version on a 128, and you will have no speed improvement. The best way to speed up GEOS is to make use of a faster storage device than the 1541 drives. Those recommended are the REU's that you are after, or the 1571, 1581 (or CMD FD) drives, or RAMLink. Speed of access to disk stored data is GEOS's major drawback, and reducing access times is probably the best way to speed up GEOS. The FAST-8 cartridge also enhances operating speed which decreases the time taken to redraw screens, etc., and offers inbuilt RAM.

The Commodore REU's and GeoRAM are not readily available nowadays, but RAMLink and RAMDrive can be purchased from Novo Computer Hardware (see ad this issue). FAST-8 can be purchased from Commodore Network. Once again, see the ad elsewhere in this issue!

If your heart is set on a Commodore REU or GeoRAM, it may pay you to advertise in Micro-Mart (it's free to subscribers) for one. Prices seem to start at around the \$100 mark, second hand. Another alternative is to pick one up from the U.S. Software Hut, Folcroft East Business Park, 313 Henderson Dr., Sharon Hill, PA 19079, U.S.A., was advertising 1764 REU's (256k for the 64) for U.S.\$69.95, or 1700 REU's for U.S.\$49.95 (adds 128k to C128). Bear in mind that the 1764's come with an American power supply, so this may need to be replaced.

BOOKS!

From beautiful Queensland, and Michael Zuniga writes:

First of all, I'd like to compliment C.N. on a great mag, full of information to satisfy our needs.

It's not very easy to find books on programming or repair for your C64, especially when these books are out of sight and out of print. There is always hope if you search and search, though.

What I'm trying to say is this: Has anybody thought of going to the local library for help? Because, if you think your Public Library doesn't have Commodore 64 stuff, you're wrong!

Well, that is why I'm writing this letter to all Commodore 64 users out there. To let them know of a few books you can get from this place. Some of these books may take some time to get to you, but eventually they will arrive! So here we go!

Commodore 64 books

- 1) Animation, games and sound for the Commodore 64 - by Tony Fabbri
- 2) More games for your Commodore 64 - by Robert Young
- 3) The time book of computer puzzles & games for C64 - by Robin Bradbeer and Harold Gale
- 4) Space adventure for the Commodore 64 - by Peter Lear
- 5) Computer Spy Games - by Jenny Tyler and Chris Oxlade
- 6) Commodore 64 Level 1 - videocassette
- 7) Commodore 64 Level 2 - videocassette
- 8) Commodore 64 Programmers Challenge

9) Commodore 64/128 in 64 mode subroutines and programs - by Phil Cornes

10) 101 programming Tricks for your Commodore 64 computer - by David Heiserman

11) A child's guide to Commodore 64 - by John Dewhurst

12) Commodore 64 Micro Mansion - by David Bonyng

13) Machine Code Routines for your Commodore 64 - by Andrew Bennett

14) the Programmer's Trouble-Shooting Guide - by Piers Letcher

15) Commodore 64 Book 1 - Starting BASIC - by M. Thompson

16) Graphics and Animation on the Commodore 64 - by Christopher Lambton

17) Very Basic - the first 15 hours on your Commodore 64 - by Derek Ellershaw

18) Advanced Machine Code Programming for Commodore 64 - by A.P. Stevenson

19) Make Programming your Commodore 64 a Game - by Philip O'Carroll

20) Commodore 64 Assembly Language - by Bruce Smith

21) The Commodore 64 Handbook - by Peter Lupton

22) Commodore 64: Basic Programs in Minutes - by Stanley R. Torst

23) Commodore 64 Fun and Games - by Glen Fisher

24) Commodore 64: Getting the most from it - by Tim Onosko

25) More than 32 BASIC Programs for the Commodore 64 - by Tom Rugg

26) Programming the 6502 - by Rodney Zaks

27) Introducing Commodore 64 Machine Code - by Ian Sinclair

28) Commodore 64 Troubleshooting & Repair Guide - by Robert C. Brenner

29) Care, Troubleshooting, and Simple Repair for Commodore 64 - by Hilsman Hoyt

This is just an example of the many books available to us through the Public Library, and the best part is that you don't have to buy them! Ask your local library for more details. I hope that I have been a help to any Commodore 64 users out there.

Note that number 2 is a great help to anyone having problems with the internals of their C64.

Many thanks, Michael. Libraries can indeed offer an invaluable resource to C64/128 owners, so please take advantage of them!

DISK-COVERER COMMENTS

Lastly, still in Queensland, and Doreen Horne writes:

Afraid I disagree with "Don" and his GEOS Disk-Coverer comments voiced in "Letter's Link" within the October edition of Commodore Network.

If authors of utilities provide text files explaining and giving instructions for the use of their utilities, those text files should not be separated from the utilities concerned, and what is more, if there is a text file then something like QUICKVIEW should also be on the disk so that one can access the instructions without further ado.

If there is one thing about GEOS which drives me round the bend, it is that horrid message that states one cannot access a file if the application concerned is not on the disk.

I appreciate that much is then duplicated in the Network column, which probably could be limited to comments about the purpose of the utilities concerned. I am totally in favour of both GEOVIEW and QUICKVIEW on a disk if their absence would make the disk less user friendly.

Believe it or not, the above is not the reason I started out with when I decided to write to you, but I think Peter is endeavouring to put together a disk in an area which has many users and probably heaps of critics, so three cheers for your support of his editorial licence.

Thanks for your thoughts, Doreen. It is hard knowing exactly what people want on their disks, and indeed, coming up with new and interesting material for that matter. For that reason I think most readers appreciate the amount of time and effort put in by Peter and yourself in producing the quarterly Disk-Coverer masters, and earns you the professional courtesy of an "editorial licence". Nevertheless, Don's input, whether we agree with it or not, gave us necessary feedback and our subscribers a starting point for discussion. Hopefully this starting point will encourage others to write in with their suggestions and ideas so that we can consider them for the future.

The strength of C.N. has always been that we value our reader's input to the extent that it is often the catalyst for change and growth within the organisation, and we value constructive criticism and healthy debate between opposing views. As I said above, let's hope we can excite a little more feedback from others - I know Peter would appreciate it!

When was the last time I reviewed a game in this column? You know, I can't remember ever looking at the fun side of P.D., so this issue, watch out! We are goin' to party with the 'puter!

SUPER MARIO BROTHERS

Probably one of the best, if not THE best P.D. platform game that I've seen! Thirty-two different worlds present the player with all manner of challenges, and there are plenty of beasties to encounter too! This is one game that is certainly not for the feint hearted!

I've never seen the Nintendo version of this game, so I can't comment from experience, but common thought seems to be that this version is very similar to the original.

Our hero, Mario, is a gifted sort of chappie. He has a humungous leap (must be the pasta), and can use this to his advantage by landing on, and squashing, any of the beasties he may encounter, and to collect various icons which impart assorted abilities such as firing missiles or gaining extra lives.

I know that you will meet a particularly tough opponent on every fourth level, and that there are ways and means in which to skip a few levels, but don't ask me how, I can't even get past level one!

This is an incredibly addictive (and frustrating) offering which does belong in every game player's software library. Most P.D. libraries should have no trouble supplying you with a copy. This game appeared on the Disk-Coverer #2 Entertainment disk.

KRAKOUT 200.LEV.

Another commercial quality P.D. game. This is the old "bat and ball" game, Breakout, with a little bit of difference. Remove all the bricks from each screen and avoid losing your balls (ouch!), whilst, on some screens, ducking the persistent baddies.

The player can control whether his/her bat is placed in the left or right half of the screen, the ball speed, music/sound effects, etc., etc.

Once in the game, you must not only destroy the bricks, but must take into account the random movements of various obstructions that appear on screen. If your ball makes contact with any of these, it flies off on a tangent, thus a close eye must be kept on the movement of the ball at all times.

Some bricks transform to specific icons when first hit, and will need to be hit once more in order to impart special features. Amongst these features are the doubling of the bat size, doubling of the scoring value of each brick, the formation of a "back" wall (so that if



you miss the ball, it bounces back into play instead of disappearing), and "glueing", where the ball sticks to the bat for a certain amount of time or until you next press the fire button. Each new "feature" supersedes any previous feature attained except for the back wall which operates for a specified time regardless of other new features attained. There are other features to be gained, but I'll leave them for you to discover.

200 levels of invigorating, infuriating, entertainment, this has kept me at it for hours (I wasn't enjoying myself, really! It was purely research for this article!). If you like this sort of game it is highly recommended. Your regular P.D. supplier should be able to help you with attaining this program.

MAH-JONG

The old Chinese tile game. This can be found under varying titles around the traps, but is generally the same game under a different (alternatively spelled) name.

Now this is more my speed (perhaps I'm getting old!). This is by far my favourite distraction at the moment.

The idea of the game is to remove all the tiles from the screen. Of course, like all great games, the idea is simple, but the execution of the principle is somewhat harder. Mah-jong complicates matters by being based around three main rules:

- 1) You can only remove tiles by selecting a matching pair
- 2) Tiles must be at the outer left or right edge of a level
- 3) Tiles are piled one on top of the other to form a pyramid of four levels upon which to work. Tiles under another tile are inaccessible until the top tile/s are removed via a previous selection. In the computer game, each level is of a slightly different colour to more easily differentiate it from other levels. Screen view is from directly overhead.

This is a game of concentration and strategy, with each move effecting future selections down the track. It is easy to play once you get used to the

colour coding and the principal of selecting only from the outer left/right edges, however, it is far from easy to master. Now, I won't discuss strategy (since my strategies have a bad habit of backfiring!), but I will tell you that, if you enjoy games that test the mind, then you will most likely enjoy this little beauty.

QIX

First released as a commercial game, this is now considered P.D. and is widely available from P.D. sources.

when first starting this game, you are presented with a screen surrounded by a border upon which a couple of animated dots move. The main display area holds a randomly moving animated object which looks something like a number of straight lines linked together. Your task is to claim as much of the screen as possible. We do this by moving our pointer (via joystick) out into the screen and "drawing" a border around the area we wish to claim. We must start and end our border on the screen border. Simple, eh! Well, there's a little more to it than that (naturally). You see, our friendly bunch of animated lines will cause us to lose a life, and any border in which we are in the middle of drawing to be destroyed,

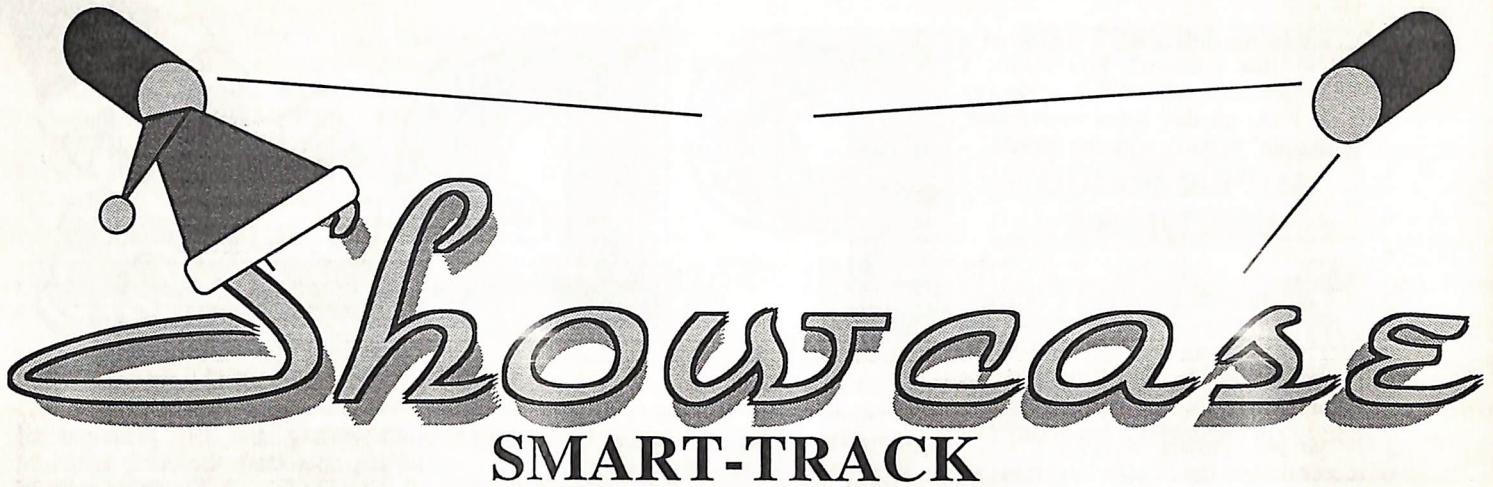
Warren Naismith

if it touches our new lines before we reach the safety of the main screen border. And let's not forget those animated dots we mentioned earlier. If they catch up to our pointer, it's a case of "it's been nice knowing you!", as once more we lose a life and any lines we may be in the middle of drawing. Unfortunately, these dots don't stick to the main border, but have a habit of following you out along the new lines you are creating.

This is a challenging game and highly recommended.

All the above games are available from C.N.P.D. on the P.D. Powerdisk #2 or from your regular P.D. supplier.





Showcase

SMART-TRACK

I stroke my fingers over her luxuriant curves, feeling her move under my touch and at my every nuance, watching her respond with heated eagerness to my every whim and desire - ah! if only I could find a woman like this!

No, this is not another one of those Mills and Boon novels, but a review of CMD's new (well, relatively new!) SmartTrack trackball, believe it or not! Using a Trackball is something completely new to me, I must admit, and as you may have guessed, I've found it a delightful introduction.

SMARTTRACK

- WHAT IS IT?

Before we really start to discuss the important stuff - like ease of use, compatibility, and cost, let's look at what SmartTrack is made of. What makes this little beastie tick?

SmartTrack is, essentially, an analogue mouse turned upside down, or more specifically, a "SmartMouse", CMD's new mouse (soon to be reviewed in GEOSgenie by Jane Jones) turned upside down.

The unit I am reviewing is a light greyish colour of a surprisingly small size (at least the dimensions seemed small to me), being only some 128mm

Warren Waisnith

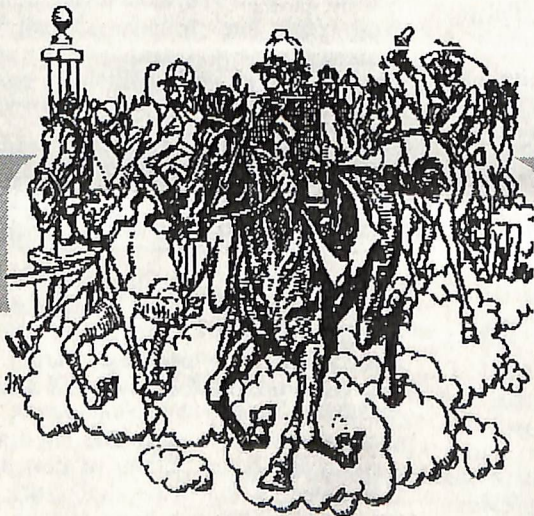
(5") wide by 105mm (4") deep by 27mm (1") high, and carries the logo "Agiler" in what looks to be a dark charcoal grey. A mouse ball is positioned just low of centre on the left side of the unit, and three buttons are found on the upper right edge. It is 100% compatible with the Commodore 1351 or 1350 mouse, with the left and right mouse buttons

being identical in operation to the 1351. The third (middle) button is a new innovation, being programmable for specific uses in your own applications.

Joystick emulation is also supported.

A connecting cord of approximately one metre gives the user a great deal of flexibility in the placement of the device, something that, in my opinion, is often overlooked. Short cords mean limited placement options which can be a real pain when room is limited. With SmartTrack, I can sit quite comfortably and operate it from my lap (usually on a bread-board resting on my knees, though I have used it quite successfully placing it on my right knee only since the unit is so small), leaving my desk clear for reference material, etc.

Four non-slip pads placed on the underside of the unit ensure slippage during operation (a most annoying occurrence) is minimised to the extent



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that I have yet to have my unit move during my use.

SmartTrack also has an in-built, battery-backed, real-time clock which is displayed in GEOS and, once more, capable of being utilised and read from within your own programs. Personally, I didn't play around with this clock too much as my RAMLink is already thus equipped, with the clock already set up, and operating.

SOFTWARE SUPPLIED?

SmartTrack comes, as with all of the CMD hardware that I've seen, with a double sided utilities disk containing some real gems to aid you in its utilisation. These include the following items:-

SmartTools -

Operates in both 64 and 128 modes and allows the setting of the real-time clock and the day/date.

SmartMouse 64 -

An input driver for use with GEOS 64 and your SmartTrack. It replaces the "COMM 1351" mouse driver (which will work just fine with your SmartTrack), and adds additional features.

SmartTrack 128 -

Designed for use with GEOS 128 and similar to the above.

AutoSmartTime

A clock utility for use within GEOS.

RUN Paint -

Creates and prints graphics in 64 mode or in 128 40 column mode.

There are also a number of modules and routines useful for programmers.

USING SMARTTRACK!

SmartTrack is an ergonomic marvel. The user needs minimal effort for maximum output. The design is such that the user can rest his/her thumb upon the ball, rotating it in the desired direction as needed to move the on-screen pointer. The index, middle, and third fingers rest on each of the three buttons on the upper right edge, ready to engage each as required. In my case, I rest the heel of my hand on the desk just in front of the SmartTrack for comfort as the unit is just too small to offer my hand any support. This is quite comfortable though, and allows me to use the unit for hours on end with minimal discomfort. This fact was apparent almost immediately, and placed SmartTrack on a level of its own with regard to input devices.

In my experience, gripping joysticks tend to leave my fingers and hands cramped after spending extended periods using this input device, and I've always found mice tedious and space consuming when in operation. My desk tends to resemble Hiroshima after the bomb has hit when I'm working, and to have to maintain a clear area in prime space goes against the grain. This trackball slots in neatly to the right of my computer, taking minimal space and offering maximum versatility, and that alone makes it worth acquiring in my mind.

IN USE WITH GEOS

I use GEOS extensively, and that is where I have found this piece of hardware really shines. Let's face it, for all my dislike for mice, GEOS just ain't GEOS without a mouse of some sort, and preferably a 1351 at that! But several things about mice I found extremely irksome (besides the inordinate space requirements mentioned above), and one of these was the continual need to move a pointer from one side of the screen to the other in jerks. SmartTrack lets you move your pointer in one smooth, continuous movement, using minimal effort. If you are in a hurry, it will even allow you to press and hold down the central of the three buttons on SmartTrack whilst you move to engage a "Fast" mode. This accelerates movement across the screen and can be a real boon when moving to opposing extremes of the display.

Installation of the SmartTrack input driver is simple and easily accomplished, even if you've never installed one on your system before. Even if you already have a 1351 installed as your input driver (this will work quite well with the SmartTrack), it is well worth your while installing the new driver for the added features such as the "fast" mode mentioned previously.

Once you are set to go, and are in to GEOS, SmartTrack offers a number of benefits. I had no trouble coming to terms with, and achieving pin-point accuracy whilst accessing menus and the like, with the trackball. In fact I found it a damn sight easier than using a mouse or joystick! The three mouse buttons also made life somewhat easier, with the left button (index finger) being pressed resulting in a "single click", the middle button (when held down) giving fast movement around the screen, and with the right button performing a "double click", a nice easy way of opening files. Kind of spoils a fellow!

As I said earlier in this section, I use GEOS a lot. To me, SmartTrack has added another dimension, and increased my productivity within this operating system. Movement around the screen has become more efficient, both ergonomically and with increased

accuracy, and speed of menu selection has increased notably. I used to hate "spinning the wheels" on my mouse - moving the unit in the direction desired, but the pointer getting nowhere fast, and on some occasions, even going backwards. This is still possible to achieve on the trackball, but you soon get used to doing everything in smooth "flowing" movements, and once you have done this, you'll never experience the exasperation again.

OTHER SOFTWARE

Ever since my 1351 bit the dust I've been looking for a replacement. I used this mouse extensively with IPaint, and its parting meant that this excellent graphics program went untouched for quite some time.

Enter SmartTrack and my prayers were answered! It performed flawlessly! In fact its accuracy (as in GeoPaint) was exceptional. Here at long last is a unit capable of delivering accurate on-screen drawing and allowing the artist to truly express their artistic bent. Sure, it's not ideal, but it's the best input device I've seen for the artist using a Commodore 8-bit. The accuracy of the trackball, and its ability to act upon the finest of movements mean that, with practice, some very fine work could be achieved in far less time than previously required and with a minimum of "pixel editing".

SmartTrack can be used with any 1351 compatible program, and, in all those I tested, it was certainly a very acceptable alternative. But SmartTrack also supports a "joystick" mode, so let's have a look at this angle next.

Virtually the only reason I use a joystick is to play games. I love the occasional foray into one of the three Mah-jong games I have installed in RAMLink (a GEOS, C64, and 128 version respectively), a game of Mastermind (once more, three versions exist), or a shot at owari (egyptian siege), yahtzee (3 versions of both), or uno amongst others. I'm not overly keen on shoot-em-ups (mainly because I'm the one that usually gets shot up!), but I do enjoy games like Boulderdash, arcanoid, and the like.

I switched on the 128 whilst depressing the right mouse button on the SmartTrack (that's how simple it is to engage joystick mode), and away we went. Performance wise, SmartTrack performed flawlessly once more. As for the player, well, that's another thing! I found shoot-em-ups next to impossible (heaven knows I have enough trouble with joysticks!). In Boulderdash, I seem to have had the "jitters", and in Arcanoid you would have thought the name of the game was

to avoid the ball at all costs - well, not quite! I spent a little time playing these games (all in the line of duty, of course!), and scores (along with dexterity) improved markedly with practice. Using the trackball did, in this case, take me a little time to get used to, and I do honestly think that if you intend to play these sorts of games, a true joystick is best - there's nothing like strangling the life out of your joystick handle, the painful cramp in your hand as you grip the joystick base, and the impossible contortions you achieve as you manually steer your craft past the oncoming baddies, mustering every ounce of concentration in order to overcome that one last hurdle. But perhaps that's just me!

Now, as for the more sedate games, well that's a different matter, and I was most at home using SmartTrack.

ROUND UP

If I was to be honest with myself, I really should have boxed this up and sent it off to Jane for review, but what the heck - editors have rights too! She gets all the good stuff anyway! Why Jane? Well, SmartTrack really is something that no serious GEOS user should be without. They go together like peaches and cream, steak and kidney, Laurel and Hardy - heck, they're made for each other!

But, even if GEOS is not your cup of tea, you should consider acquiring this unit if you are using any paint program that supports the 1351 mouse, its drawing accuracy makes it well worth while if you are serious about your computer art.

WHAT I DON'T LIKE!

The cost!

WHERE CAN I GET IT?

From Creative Micro Designs

At this stage there are no arrangements in place for a local supplier in Australia.



Bits & Pieces

Welcome to December's Bits & Pieces column. Unfortunately, Kevin wasn't able to get his column in in time this month, so I'm filling in for him. May I take this opportunity, on behalf of Kev, to wish you all the best this coming festive season.

1541 HALF-TRACK FIX

First off this month is a quick little routine to help you re-align those 1541 drive heads after loading programs that use half-tracks in their copy protection.

Here's the routine:

```
10 OPEN 15, 8, 15, "i0"
20 PRINT#15, "m-w" CHR$(254)
   CHR$(2) CHR$(1) CHR$(1)
30 CLOSE 15: END
```

This will step the drive that one half-track required by writing a one (line 20) to the PHASE location (\$02FE). This is checked during each interrupt by disk ROM code at \$F99C. If the value is found to be one, then the routine increases the value to two and steps the head by a half track.

Validate the disk and if you get more errors, run the routine again to return the drive to its initial state.

SMART DOS

The Disk Operating System that Commodore saw fit to bless us with isn't all that bad if you can pick up a few of the "features" that Commodore, in their wisdom, did not bother to tell us about! for instance:

```
OPEN 15, 8, 15, "s0: prog1,
prog2, prog3, ???, a*": CLOSE 15
```

will remove the files "prog1", "prog2", "prog3", any with three letter names, and all those starting with "A" from the current disk.

Now try the following:

```
LOAD "$:a*, b*",8
```

This will load in a directory displaying only those files beginning with an A or a B. You could also try:

```
LOAD "$:???????????",8
```

This will display a directory of all filenames which contain ten characters.

Another option is:

```
LOAD "$$",8
```

This will present you with only the blocks free information from the current disk.

You are free to use any number of arguments and any kind of pattern matching as long as the input is limited to within the Commodore's 40-character line length limit.

M.L. DEBUGGER

Here's something for the Machine Language coders out there! Debugging M.L. can be a real pain-in-the-Aspidistra, so here's a little tip I use to find if a section of code is being executed or otherwise.

I initialise an area of memory with zeroes using a monitor. I then place a simple INC "address" ("address" being the start of the area of memory that I've placed the zeros in) + X at various locations throughout my code. The X is a number from zero on up, and is itself

Warren Watson

incremented by one each time it is placed. For instance, the first time it is used, it is as: INC address. On the second occasion, it is INC address +1, the third time it is: INC address +2, and so on.

I make notes of the locations of the INC calls within the program for reference, and then assemble my code.

A test run is then performed, and after the run is complete, or I have aborted the operation, I use an M.L. monitor to examine the contents of the area of memory to which I saved those zeroes initially. The numbers you see will tell you exactly which parts of your program were executed, and just how many times they were incremented (executed).

Be aware though, that it is unwise to place your INC instructions at points within your program where the state of the processor flags are vital. If you absolutely **MUST** place the INC in such a situation, ensure you use a PHP instruction before, and a PLP instruction after to save and restore the processor status register.

SPEEDY 1541

Type in, save and run the following:

```
10 OPEN 15, 8, 15, "m-w" chr$(94)
chr$(0) chr$(2) chr$(1) chr$(41)
20 PRINT#15, "m-w" chr$(100)
chr$(0) chr$(1) chr$(3): close 15
```

This speeds up the movement of the read/write head by altering the acceleration and the amount of time between steps. Head movement time is reduced by more than half.

SCREEN CODE TO ASCII

Here's a quick one for you:

```
A = (S AND 127) OR ((S AND 64)
*2)) OR ((64-S AND 32) *2)
```

How's that for quick and easy?

1581 FILENAME PECULIARITY

In earlier Commodore drives, the "Y" in the command: LOAD "X*Y", 8 would ignore the "Y" and load the first files to begin with an "X", but with the 1581, that added "Y" has a meaning. It further stipulates that the file to be loaded **MUST** end in the character "Y". Here is a chart to help illustrate this:

filename	1541/71	1581
xanadu	yes	no
xanadont	yes	no
xanady	yes	yes

A "YES" means the file will load using the LOAD "X*Y",8 command explained above.

RESTORING A SPLAT FILE

Not all "splat" files are restorable, but if they can be brought back to life, then this should do it!

Try this:

```
OPEN 8, 8, 8, "0:filename, S, M"
```

If the little mongrel won't co-operate, don't risk corrupting your disk by scratching it, use **VALIDATE** to tidy up your disk. On the C64 this is achieved with:

```
OPEN 15, 8, 15, "V": CLOSE 15
```

Or, on the 128, type:

```
COLLECT
```

CURSE THAT CURSOR!

Ever wanted that on-screen cursor of yours to move just that little bit faster? Well, here's how to do it! Use this line:

```
POKE 650, 128: POKE 56325, 10
```

Location 650 poked with the value 128 enables all keys to repeat. Our cursor's speed is set by location 56325, which can be filled with any legal value. The lower the value, the faster the cursor movement.



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CP/M and NULU Libraries

CP/M Corner

I promised you some information about NULU and Library files in my last article, so here we go. First of all, NULU.COM is available in the Public Domain. Now some of you may well ask what is NULU and what are Library files?

Well, everyone knows what a Library is, and that it contains a collection of books which contain pages of information. Our Library is similar! It can hold a group of files under a single "Title" or "Name", and when you open that particular Library, it then reveals all the files and/or articles that are contained therein! However, like all libraries, you will need to know how to find what you want, and, in our case, how to create a library in the first place if we do not already have one.

We will start at the A> prompt and type NULU <RETURN>. You are now prompted for a command along with a reminder that -M will display the NULU menu. Perhaps we should now choose this option as most of us will not know how to proceed. You will now see that NULU offers several options, most of which are clear as to their use from the brief description provided in the menu.

CREATING A LIBRARY

We realise that to open our Library we will need to select option -O, so, of course, we select this and enter our Library name xxxx. NULU now tells us that no such Library exists and offers us a choice of either specifying the number of files to allow for inclusion in our NEW Library, or aborting the operation. We respond with the number of files we expect to put in this Library, and, depending on the number entered, NULU may decide to open our Library with MORE entries than we input. This is because NULU operates on entries in multiples of FOUR, taking the number entered and adding one. It then rounds the resultant figure up to the next multiple of four.

NULU now informs us that it is awaiting our selection of a further option. Naturally, we will select -A in order to add a file to the Library. A filename will be required, so we need to type: -A filename <RETURN>, and NULU proceeds to add "filename" to our Library. Repeat this process until we have added all the files we want. Knowing that NULU accepts wildcard characters like * and ? can speed up this process tremendously. Having completed the "filling" of our Library, we can now close it with -C <RETURN>, upon which NULU informs us that our Library is closed. We can then exit the program with a -X <RETURN> and return to CP/M.

WHY?

Now, you may ask why go to all this trouble? NULU, when used in conjunction with SWEEP (to squeeze files) or with one of the other options within NULU to "Crunch" a file, can save not only a lot of disk space, but also cut down on the number of directory entries considerably.

We could, for example, have had ten files concerning C.N. magazine, three files of addresses, three files of phone numbers, or whatever, giving a total of 16 files, and therefore 16 directory entries. At the prompt DIR or whatever you use to show directories (there are many options in CP/M) a large number of entries can result in a display that is difficult to read. By putting those files which we do not access regularly in to a Library file, we have reduced our directory read-out down from sixteen entries to three. Assuming that you have followed the above 16 file example, we have created Libraries named "CNM", "Address", and "phone". NULU has lots of options and we have only explored a few to whet your appetite. Experiment with it and SWEEP, and you will enter into a whole new realm of computing that you may never have realised lurked in your Commodore 128.

CP/M

PROGRAMMERS?

I read an article many years ago by an American who had been used to an Osborne and Kaypro with CP/M and had only just purchased a C128D, added an REU, and was telling everyone in the CP/M world that at last he had discovered a computer that could really make use of the many attributes of CP/M. Just imagine what he would say today when we have RAMLink, RAMDrive, FLASH-8, and the CMD FD and hard drives available! CP/M is not yet dead, and we should keep the flag flying, as I can see a resurgence coming if what was reported in the October C.N. about CP/M for the C64 comes true.

We need someone to patch CP/M+ to allow full use of partitions on the CMD FD-2000/4000, so come on readers, there must be someone who knows how to do this? I have not been able to achieve this so far, but will keep trying.

Happy CP/Ming till next time!

Alastair Hay

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GeoZ
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INTRODUCTION.

From the Editor

Commodore Network has had an ongoing policy of supporting all facets of Commodore computing throughout its short history. We have previously carried a "demo" column, but due to its author leaving the Commodore, and the lack of a replacement, we had to drop the item. Now Heath has stepped forward and offered his time and effort to help promote the "scene" and its creations. I would like to encourage all sceners to help make this work by keeping Heath up to date with the latest "scene" news and warez. I know of several who joined the "scene" initially through the efforts of C.N. and its encouragement, and I hope that, with your help, we will be able to do this again. The Australian demo scene has seemingly been in the "doldrums" these past few years, let's try and do something to turn this around!

Those of you who have read Commodore Network from the very first issue, which was June 1992, will probably remember a "DEMOS" column written by David Stacey. Some of you may also have purchased early back issues in which David's column often appeared. I hope that most of you have, because I don't intend to cover the same ground again, simply because my space allotment is limited. David Stacey's last Demo column appeared in March of 1993 (Please correct me if I'm wrong!).

Since then, the pages of Commodore Network have been devoid of information relating to the demo scene and its products, excepting the May 1994 issue in which the world of the demo scene was examined in "P.D. Power".

I am here in an attempt to fill this void (with Warren's approval), and present something slightly more regular in relation to the demo scene.

At this point in time, if you haven't read the May '94 "P.D. Power" column, please do so now. If you haven't got that issue, order it from Commodore Network as a back issue (cost is only \$3.50, including p & p). . . . Right, you've read that? Good.

It is absolutely essential that we get involved in the Demo scene, because, although some of us may not realise it, we all benefit as Commodore owners, from what this "organisation" can offer us. There are a plethora of programs available, and even though things have

On The Scene

slowed down these last few years (particularly in Australia), there is still plenty of life left yet in the demo scene.

One of the best sources of information in the "scene" are the disk magazines that many of the groups produce. Their purpose is to inform others of what is happening not only on the "scene", but in the general Commodore world and, believe it or not, the everyday world! As an example, this month I'm looking at "The Grape Vine #12", which is a disk magazine produced by Australians! It was released on the 25th of October, and I received it a few weeks after its release. My point being that it's not a year old, which I've known some to criticise.

THE GRAPEVINE #12

This is not really a review, but rather an examination of content to give you an idea of what scene disk magazines can contain (as each has a different style). This particular issue of TGV contains twenty chapters, each selected from a menu. Here's a rundown of some:

FAKE FAST IRQ LOADER - Documented source code for techie types.
WHAT'S SO FUNNY - Jokes
CLASSIFIED INFO - buy and sell section
CEE64 ALIVE REVIEWED - copies available from Commodore Network
DEFENDER OF THE CROWN - strategies for solving
MOVIE REVIEWS - "True Lies" and "The Lion King"
SUPERSTITIONS - and omens in great detail
THE WOODEN HUT - Part three of a story etc. etc.

The mag also includes an interview with Marc Walters of PMCC fame.

As you can see, there's plenty to read for the non-scener, and although you'll learn more about the demo scene, this

is very general in content.

TGV#12 is accompanied by some P.D. programs, one being a tarot reader.

Note: the next issue of TGV was to be released mid-December, in which case I'll have it by now.

Some disk magazines you may have heard of include "Magness", "Smash", "Domination", "Shock", "Pulse", and "Vandalism News".

Moving right along now, and here's a quick look at "Two Years System" by an Aussie group, "System International", released 7th. October '94.

This demo consists of seven separate parts. After a kicking intro (with pumping sonics), expect to see a backward scroller, a DYCL scroll (scrolling text in progressive size - meaning that it gets bigger as it goes along), a DYCP with flashes, etc. The last part features information on "System International" - their history, members, and future, with each of the three topics selectable from a menu.

Heath Kirby Miller

A comment in Issue #8 of the disk magazine "Magness" about a desire to see a demo with a magazine part, incorporating different chapters, springs to mind. It looks like the Aussies have delivered the goods!

This is a neat little production which runs approximately fifteen minutes.

Some of the demo groups you may have heard of:

Legend, Fairlight, The Dark Realm (responsible for TGV #12), Padua, Entropy, Camelot, and Shazam!

Now, I'd like to ask ANYONE out there whether they know of the "DOWNUNDA" demo? The idea was

ZORK II - THE TEN TREASURES

- Statue from the Dragon's Lair
- Portrait from the Chairman's Office
- \$200 in Zorkmids from the Vault
- Small gold key from the Princess
- Coin from the small ledge
- Rare stamp from the Purple Book
- Crown from the Dusty Room's Chest
- Ruby from the Lava Room
- Violin from the Steel Box on the Carousel
- Pearl Necklace from the Pearl room

Well, there we are. I know now that the weather is warming up and the holidays are approaching, that many of you will not be spending too much time in front of your good old C64. But if you have a copy of "Zork II" that you have yet to solve, try and find the time to fire it up again.

But for now, I must depart. If you have any adventure or role playing questions you need answered in order to make some progress in that game you are playing over the holidays, or can offer some hints and tips for that adventure or RPG, or ANYTHING else you would like to contribute, feel quite free to do so.

If you would like a personal reply, a stamped addressed envelope is appreciated.

Here's my address:

RMB 221, Sunraysia
Highway
STUART MILL
Vic. 3478

See you next year



I did spend some time with "Video Shop" when I first got it. I got discouraged when I read the manual several times and I couldn't really establish the purpose of the programme except via its title. I actually bought "Video Title Shop" and "Screen FX" in the days when the Commodore 64 and Beta Video Recorders were "state of the art". I found both programs to be excellent - or rather, they produced excellent demos.

However, I never actually created anything with them - just looked at the demos. The two reasons for this were -

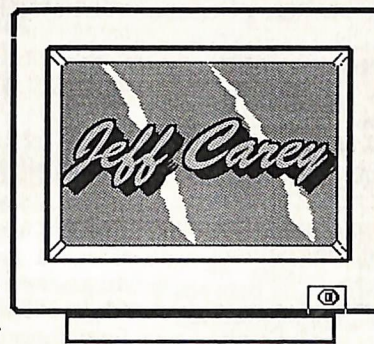
1) I never had a reason to actually use the programs, and, with these types of programs you really need to have a reason because you have to put a lot of time and effort into them in order to produce something worthwhile, and

2) I found the instructions very extensive but difficult to come to grips with.

I found similar difficulties with "Video Shop", except that it didn't have the brilliant demo to get you enthused with. I thought that the graphic files which had been added were probably

the best part of the package for an ordinary user like me who didn't want to write a video intro., but I must admit I didn't attempt any graphic conversions via the program.

When I was first trying "Video Shop", I found myself saying "why, in 1993/94, would anyone spend the time and effort to write a complex program like this in the twilight years of the Commodore 64?". However, I have since been told that it was written in 19, and by an Australian programmer, but somehow didn't make it to the commercial market. As such, it is a very good example of the art of the programmer, and it is a pity it didn't get a better release at the



time.

"Video Title shop" and "Screen FX" seem to have disappeared off the market, but "Video Shop" has been re-released through Commodore Network. If you are looking for a video titler or an intro maker, and are prepared to invest the time and effort to get output from the program, then it's available at a reasonable cost. But if you are one of those who think the program should do all the work for you, then give it a miss!



Continued from Page 25

Similarly, pins 16,33, and any of 19-30 are equally effective as signal ground, although 17 probably would not work. Also, some circuits do not connect pin N to anything. So if you have a cable with any of these variations, there should be no need to change it.

And if you happen to have a printer without an earthed power lead (unlikely) you may have trouble with AC hum induced by the shield of your cable - in that case, the shield (bare) wire should go to pin 33 instead of 17. I expect if this problem was to occur, it would show up as spurious garbage mixed in with your printout, or spontaneous resetting or locking up.

Before I finish - if you don't know how to use this with GEOS, I suggest you need The LQ Print System from CMD. As for SuperScript & Superbase, the manuals give an excellent coverage of setting up the defaults for parallel printer driving. Basically, connect your cable between the printer and your User Port (NOT the games port), set up the correct printer driver, and try it out.

Happy Soldering !





Expanding Horizons

At Last - A Cheap Parallel Printer Cable

Every now and then "Letters Link" revives the old subject of the GeoPrint Cable, which has become the generic name for a parallel printer connection. This name-calling probably came about because GEOS was the first really popular program to benefit from Parallel connection of the printer, although most of you probably have been happily GEO-printing along through your serial interface, without really knowing what all this is about.

In a nutshell, the difference between serial and parallel communication (which applies to any peripheral device, not only printers) is that the serial method sends one bit of information at a time along a single wire. With parallel communication, the computer sends EIGHT bits of info simultaneously. Surely this means 8 times faster results ?

As usual, it isn't as simple as that. Firstly, the transfer protocol (the initial contact, the o.k signals and so on) takes up the same time in either method, and more importantly, the receiving device often can't handle the information even as fast as the serial method can transmit it! For example, I use a serial interface with my word processor, and the computer is always back on line well before the printer has finished the page. Therefore, I have no reason to look into a parallel cable for that! It's not a particularly slow printer either.

But with GEOS, especially using HQ drivers, or the LQ system, the data transfer becomes the most significant time-user in the printing process. For instance, today I printed out some full-page forms (which I designed for Work) in GEOPaint. They are 12K files, mostly straight lines, but requiring a good quality printout. Using "HQ24 Low* Eps S5" driving my Epson LQ1000 through a Super

Graphics interface, the forms took 31 minutes and 35 seconds !!! Plenty of time for a snack. During August and September, I produced eight or nine full page dodgers for the School Fete - using LQ and with a few bits of clipart on most of them. Though I didn't use a stopwatch, I recall at least one of these took over 40 minutes to print. By the way, I count the time that the computer is inaccessible, being the time it is busy sending data to the printer.

Well, having finally assembled the bits I bought ages ago into a parallel cable, I loaded the "HQ24 Low* Eps GC" driver, and printed out the same 12K file in NINE MINUTES ! That's nearly four times as fast as the serially-connected printout, and not to be sneered at (except by those Philistines who use those heavily-promoted stone-age machines known as MS-DOS)

Maybe you're not convinced yet that you need a GEO-Cable (oops- there's that name again), because you use the original GEOS printer drivers, which are much faster. However, the same sort of speed-comparisons would apply, and surely you aspire to better quality printouts, which means you will be using HQ-type drivers sooner or later, if not LQ Print.

Anyway, they are not so easy to find, you say, and will cost about \$50.00 to buy. Well - mine cost me \$19.85, using all new components, and could have been less by doing a bit more scrounging. I have priced everything from the latest Jaycar catalogue, and all the parts needed to make a Deluxe model will come to \$26.15. And all the work needed is 11 soldered joints for the basic model, plus eight more joints and a couple of holes to be drilled for the Deluxe. Oh, and three or four screws to do up.

Firstly, a spot of background. Virtually all printers these days have a "Centronics" interface fitted as standard. This is a fairly large

rectangular socket with a slot down the middle with 18 contacts along each side. It is thus not at all like the "D" series sockets which have two staggered rows of pins, or holes, along them. The outer cases of both types of sockets are fairly similar though, but the clincher is the number of contacts (D series have always an odd number of connections - D9, D25 etc.). IF your printer has a centronics connector, its 99% certain that the GEO-Cable will work. If it now works OK with one of the common interfaces, it WILL work with a GEO-Cable.

The only difficulty, is getting a Commodore "edge connector". These are not as easily found as they were years ago, but Jaycar has them at \$6.95, cat. number PA-0888. The manufacturer's part number is WK-N12A2G, which would probably help if I knew who the manufacturer was ! IF you can find one of the older 3.75mm pitch edge connectors it could be cut down to 12 rows of connectors, which could be used with care. A cover (or backshell) isn't essential, but is highly recommended to avoid stray junk shorting out some pins and destroying your computer. Jaycar has one at \$2.95, cat number PA-0889, which also will house the extra parts of the Deluxe cable. Dick Smith does not list these parts any more, but try your local electronics store, or Commodore Service Centre (at a price !).

The only other essential parts are a

Paul Williams

Centronics plug, (\$3.95, cat PP-0890) and a length of at least 12-core cable (preferably shielded, though I know of one which isn't, and gives no trouble). The most suitable cable listed is 25-core, at \$3.95 a metre, cat WB-1580. Any longer than 2 metres will be unreliable due to signal-loss. If you want to risk non-shielded cable, the so-called ribbon, or "IDC" cable comes in 16-core at \$1.95 a metre. Any Electronics store will have all these things, (except probably the Edge Connector).

A worthwhile shortcut is to buy (or scrounge) a common "IBM" (wash my mouth out - ugh!) printer cable, which has a Centronics plug one end and a D25 at the other. Just cut the D25 off, and there's half the work already done, Jaycar cat PL-0854 at \$12.95.

Now for the Deluxe components - one push switch (momentary contact) at \$1.10, plus, for the Super Deluxe, one small single-pole toggle switch, \$2.20 (cat SP-0710 and ST-0550 respectively) These will need to be the

smallest available, to fit into a plug backshell.

Tools required, will be a suitable soldering iron (20watts or less, with a fine tip) and a pair of side-cutters (small plier-type things for cutting wires), plus a scrap of fine solder. Total cost (if you have to buy them), about \$30.

And now to work. If you have taken the hard path, and bought a Centronics plug and length of cable, you need to carefully remove about 40mm of the outer casing at each end of the cable, and cut away about 4mm of the individual insulation from 12 of the wires (14 for Deluxe models). Also, locate the trace wire which is an uninsulated wire used to connect to the shield foil. Dismantle the Centronics plug (remove its cover) being careful to not lose any screws, and remembering how it goes back together. Plug in the soldering iron.

Centronics plugs are connected to an international standard. The pins will be microscopically numbered, with 1 at the top right (looking at the soldering side), and counting anti-clockwise - the top is the longer edge of the surround. Pin 1 is the strobe signal (to synchronise the sender & receiver), pins 2-9 are the eight data signals, pin 10 and 11 are both for the "ready" signal (see later for their difference), pin 14 controls the auto carriage return (half of our Super Deluxe function), 16 is 0 volts (more or less ground), 17 is connected to the printer frame (more or less Earth), 19-30 are the return, or ground, pins for the signals on pins 1-12, pin 31 is the initialise or reset pin (the other half of the Deluxe model) and pin 33 is a general signal ground. The others have no relevance to our project (but don't connect them to anything!). Most centronics plugs come with pins 19-30 strapped together, which is no problem.

What you have to do with all that information is as follows - Solder one each of your 12 bared wires to the following pins on the Centronics plug - 1,2,3,4,5,6,7,8,9,11,16 & 33, plus the trace wire to pin 17, with another short wire from here to the metal frame or housing of the plug. If you are going for the Deluxe model(s), you will need a wire to pin 14, and another to pin 31. Use just enough solder to flow over the wire strands, and not enough heat to melt the plug or insulation of the wires.

Now you begin to see why all those little wires are different colours! (note that some may have stripes as well). DON'T put the cover back on yet, so you can see which goes where!

If you bought a cable, and cut off the D25 plug, you should see if the cover will come off the Centronics plug, to make the connections visible. If not, all

is not lost - see later.

Now for the other end. Firstly, check the covers of both plugs to see if they have to be threaded over the cable. The Commodore one does, if you got Jaycar's version. If so, put them on now, and the right way round. Its very annoying undoing 12 soldered connections just because you forgot to put the covers on!

Now, take a look at the edge connector. It should be "numbered" against each pin. But in this case, one row has 1-12, and the other has A-N. . . . wait a bit, A-N is 14 letters! You will see that G and I are omitted (probably to avoid confusion with C and 1). This plug has NO orientation system (it will go on either way round) so get used to the idea that the NUMBERS are on TOP and the Letters are beneath. We need to make connections to the lettered pins only, that is to the bottom row. Using the wire colours as a guide, make the following connections -

Commodore Centronics	
A	16
B	11
C	2
D	3
E	4
F	5
H	6
J	7
K	8
L	9
M	1
N	33

Be sure to check and double-check these connections, as an error could cause serious damage to the computer. Also, check very carefully for any shorts between pins, or between pins and frame. For the basic model, this is it - re-fit the cover to the Centronics plug, assemble the cover onto the edge-connector - noting WHICH SIDE is UP - and you are ready to try it out. By the way, make sure there is room around the User port for the cable-exit - on the C128 and C128D you will find the 80-col monitor lead makes it necessary to assemble the edge connector with the cable exit to the Left (away from the monitor plug), but C64 installations can go whichever way suits your set-up best. Whatever you do, MARK the TOP of the edge connector and/or its cover for future reference.

Those who went the easy way, but couldn't gain access to the Centronics wiring, will have to use a continuity checker (simple multimeter, or torch globe and battery) to find out which coloured wires go to the above pins. Make a list of wire colours, preferably in the same order as above, and CHECK it again, carefully. You do NOT want to get it wrong.

Now for the Deluxe versions - A reset switch is pretty useful, if for no other reason than to save paper, but also as an aid in lock-ups. If you could dismantle the Centronics cover, it can be fitted in there (check if the cover is deep enough), but if you put it in the Commodore plug cover, it will help prevent reversing the plug, and will be handy enough. just connect the push-switch between pin 31 and either pin 33 or 16, and juggle it through a 5/16 inch hole in the cover. You will have to bend the pins of the switch at right-angles to make it fit.

Most printers seem to have a DIP switch to control the auto line-feed, but if not, in the Super Deluxe version, the miniature toggle switch connects between pin 14 and pin 16 or 33. Solder the wire from 14 to an outer pin of the switch, and the wire from 16 or 33 to the centre pin. You will need another hole in the case for this, 1/4 inch this time, and if you have the right switch, it will fit with about 1mm to spare. If the switch is "on" there will be a line feed with each carriage return, if it's "off", linefeeds will be determined by the computer. It would be wise to mark it after testing.

Well, that should have put you in charge of a working (and perhaps Deluxe) parallel printer connecting cable. Now you've become really interested, I will tell you something else . . .

With a few notable exceptions, this cable will NOT work with most of your software. The main exceptions I can think of are . . . GEOS (of course), SuperScript and Superbase, the Pocket series, and . . . um . . . well, not too many more. You see, the User Port is NOT a printer port, and must be instructed in detail how to control the printer, which means Software control. There are some PD Parallel Cable printer driver programs, which you may be able to splice into your software.

Because of this, you will need to change back and forth between your Serial interface and your new parallel cable, but to save the trouble, it would be feasible to buy a centronics two-way switch unit (Jaycar cat XC-5072 for example \$39.95) which will need a short double-ended centronics cable (Jaycar PL0872, \$19.95). But once you've experienced the time-saving of a GEOS printout with this cable, it will all seem worthwhile.

And by the way, there are some variations to the pin connections which seem to work just fine. Pin 10 and pin 11 are both for the "ready" signal, but 10 sends a pulse to tell the computer it's ready, whereas pin 11 remains 'high' for not ready, and 'low' for ready.

Continued bottom of Page 23

I have just been looking at my list of disks and programs that I have written and re-written for the subscribers. Let's list some:

- 1) MAINMENU - Loaded by the "start" program to present a number of further options and available programs.
- 2) TELEPHONE AND ADDRESS BOOK - Enables a listing of call details while calling/receiving.
- 3) SINGLE COLUMN LABELS OUTPUT - Shows you how to use the "report" feature of SuperBase.
- 4) UPDATE-REM-LIST - Updates the special note field with "REMARKS"
- 5) SB-CHEF 128 - Lists recipes, menus, ingredients, and a darn lot more!
- 6) UPDATE.P - Automatically updates a file according to pre-set commands.
- 7) FIND.P - Finding "select lists"/sorting/outputting made easy.
- 8) SUPERBASE MENU.P - Menu of options and functions made easy.
- 9) BROWSE-FILE.P - Fast browse for any SuperBase file.
- 10) ADDING-RECORDS.P - Safely add records to your file.
- 11) COPY-FILE.P - Copies data from one version to another without loss.
- 12) SUBJECT-LIST.P - Lists your fields in alphabetical order minus repeats.
- 13) OUTPUTONE3X1.P - Now incorporated in the above program. Outputs is 3X2 columns across the page.
- 14) FIND DISK LIST - Finds a list of people receiving a certain disk.
- 15) DELETE RECORDS - An easy and quick way to delete unwanted records.
- 16) SERIAL RENUMBER - Consecutively numbers records within a file, etc.
- 17) SB-COMMANDS - A listing of SuperBase commands for automatic execution
- 18) SS-COMMANDS - A listing of SuperScript commands that can be programmed into SuperBase.

There were also a lot of smaller programs scattered throughout each disk, the sum total of the many man-hours involved in producing these would be immense. All these disks and programs are available to anyone who uses a C64/128 with SuperBase/SuperScript.

Also available are disks and programs

Superbase

Snippets

written by Precision Software and others, including professional cashbooks, invoicing, stock lists, managing dairy cattle/stock, beef lot feeding, beekeeping, library file, sports teams, etc. For further subjects and listings, please ask!

ALTERING SUPERBASE/SCRIPT PROGRAMS

I first used SuperBase/SuperScript on a C64, but because of the memory limitations, I soon up-graded to the 128. Present-day owners of the 64 who have added memory and a 1581 disk drive should be able to get a lot of satisfaction altering their programs to their computer configuration. Most of the smaller programs I've written should run without modification on a 64 although they were written on a 128.

Because these programs do not come in sealed packages, any user may alter or use the code as they see fit. However, if the coding is altered, for your own benefit, please alter the date and REM remarks in each file altered to reflect your new version. It is also good manners to continue to honour the original source of the program and its

author.

It will also pay to ensure that the disk and disk box are properly labelled. Trying to find the right disk for each job can be a real hassle otherwise!

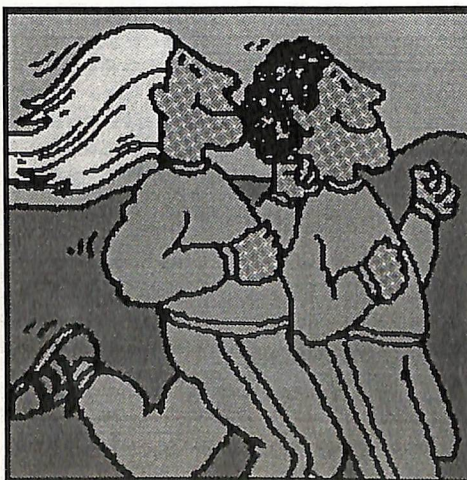
It must be stated that even the smallest modification can cause drastic results. Before you test the effects of a certain alteration on your program, please ensure that you have several backups of the original. and if you do get into difficulties, remember, that's what we are here for!

Support is extended to all users, and donations and contributions from all grateful users are always appreciated, and often result in further free software being made available.

Should you wish to devise a program of your own choosing and design, please remember that I am happy to be consulted at any stage, for any reason, and am glad to contribute on whatever basis seems appropriate.

DELETE-\$-FIELD.P

This short file, found on the MENU disk, illustrates the fundamental importance of being able to program a database yourself rather than relying on bought packages. It was requested by



Just popping out
to renew our
subscription to
Commodore
Network

Rod W of Brisbane. apparently, something had corrupted the "Lastname" field of his database. This field may have even been a key field. Rather than tediously deleting the last four characters of each field by hand throughout some 2000 records, he wanted a program to do it for him under program control. this was the successful routine. It may be modified to suite any field, or any number of characters in any file in any database.

SB-CHEF128

this disk brings with it some very new and innovative programming that should interest anyone trying to use SuperBase with SuperScript 64/128.

The APPEND.A list) program enables one to skim through the RECIPES file to select the ones of interest by updating the Status field to "y". From these keys, an UD-ORDER-LIST.P is executed on the file of STOCK, and proceeds to create a shopping list of ingredients needed (but not in stock).

There are versatile output programs for MENUS, STOCK, and RECIPES that can operate on a select list or the entire file.

SUBJECT LISTING

The old subject file program and the OUTPUTONE3X1 programs have been replaced with a new program that combines the benefits of both. With the new SUBJECT-FILE-GD, one is able to output ONE subject field alphabetically, with a second echo subject field. Both fields can be output side-by-side in 3 X 2 columns across the page.

This new program would be of interest to Vic. M of Banora Point, who enquired about a program that lists the subjects without repeating similar keys, this program does that too!

As the whole operation of sorting is done in memory, it is quite fast. this program will appear on every new disk I produce as of this date. As I had to buy help for this one, don't hesitate to tender the small amount that it will cost me to get the program to you.

This dual field listing should be useful in many hobbies. for instance, with flowers, on "lily" subject could have several colour echo fields listed. With stamps, one could have Penny - Black or Penny - Red. With animals, you could have Dingo - Black or Dingo - Tan, etc., etc. alternatively, the subject program will still list single column subjects stating how many records have been counted, and how many have been printed (In the case of repeated subjects, one would expect a lesser number being printed).

UPDATE PROGRAM

Recent alterations to the UPDATE.P program have provided the user with the additional option to FIND a SELECT-LIST before the up-date process begins. this means that it could be used as a faster, more efficient means of finding a list and updating the fields from that list. an example would be the [SN] (Special Note field) that is updated by the UPDATE-REM-LIST.P program. Not only will UPDATE.P do the job faster, but it can also be used to update multiple fields via multiple commands listed out on a memo screen.

Anyone wishing for a means of fast, unattended update operations would do well to find out more about this program. Most users will have an earlier version of this and will therefore need the update.

If you would like a copy of the above, please send a donation of stamps or disks to help me with my computing costs and the dispatch to you.

RENUMBER AND SERIAL RENUMBER

The "renumber" program should not be confused with the SuperBase command of "renumber". The latter will renumber every line of a current program in memory by multiples of ten. this is done automatically when you type the command on MENU1 of SuperBase.

The "renumber" program, by contrast, renumbers not the lines within a program, but rather the records within a file. When adding or deleting records in a file, the consecutive number of each record is altered. This can be a serious matter, but, in general, the consequences are of little importance. In any case, for those programs in which the record order is important, this little slow running program can be a godsend.

The program operates on three or four fields within the record. The first field is the COUNT field, accommodating the current record number as determined from the beginning of the file. The second field is the GROUP field, and this contains the name of the group to which this record belongs. Our third field is the NUMBER field, in which our records number position within the group is stated. There is also a fourth field for SERIAL counting. this essentially does the same thing as the COUNT field, but is a numeric rather than text field.

the output of the file will help you determine just how many records there may be in any particular group or,

indeed, the entire file. Since the criteria in the GROUP field can be altered by a BATCH update to suite any particular requirement, this field can be used to discover many an interesting statistic. Since we don't know beforehand exactly which statistics it may be necessary to access in the future, these fields are usually included in every record from the outset, or added to the bottom of a record format later in order to facilitate the running of a club or business.

GLOSSARY OF FRESH IDEAS FOR SUPERBASE/SUPERSCRIPT PROGRAMMERS

Plans are well underway for the compilation of this publication. It will be compiled on 1581 disks using a C128 and both SuperScript/SuperBase. Anyone with unpublished or copyright free material, script, graphics, or sound, is invited to submit chapter and verse for consideration by the editor.

NEW PROGRAMS IN THE MAKING

One of the consequences of publishing articles about sb/ss is the need to produce an ever increasing number of disks covering a wide assortment of subjects. Because each disk produced is best based on the knowledge accrued by those who would use it, it is necessary to collaborate as a group. If you have any ideas for a SuperBase disk for your hobby/pastime/business, then please do yourself a favour by telephoning or writing to me at the address below.

LT. COL. JAMES KENNEDY

C.N. goes international. You may be able to find this man for me. Originally from the Isle of Wight in Britain, he was last heard of teaching computer science in Florida, U.S.A.. I enjoyed his letters, but lost his address. Can anyone help, I'd like to resume our correspondence!

IN ENDING

If you have any pet subjects and need a little program to help you out, do drop me a line, either via C.N. or direct to me at:

S.B. Enthusiast
P.O. Box 54
Landsborough
Qld. 4550



Commodore Network Merchandising

9 Wadeson St, Cobram, Vic 3644

DISK UTILITIES

THE 1581 MASTERS COLLECTION

A collection of 1581 utilities and files, supplied on a 1581 disk. Ideal for owners of this drive or the new CMD FD series drives looking for utilities to help them get the most out of their equipment.

\$5 to subscribers \$7.50 non-subscribers

THE 1571 MASTERS COLLECTION

As above, but for use with the 1571 drives. Includes programs to help you utilise your drive's ability to handle MS-DOS disks.

\$5 to subscribers \$7.50 non-subscribers

GEOS

SAMMANTHA'S GRAPHICS GOES GEOS

Yes, the popular Sammantha's Graphics in GEOS format, a must for those wishing to add a touch of Australiana to their GEOS documents.

\$5

GEOS BORDERS

by Norman B Gough

A selection of borders for use with GEOS. Two double sided disks for an unbelievable price of just \$7.50 the set.

CN GEOPAK #1

A selection of GEOS items fresh from Q-Link in the States. This double sided disk contains FULL documentation for most files. Disk contents include: Poster Print, Change BSW, various Fonts, Printer Drivers, and graphics, Unpublish etc. A must for any GEOS collection.

\$5

CN GEOPAK #2

The long awaited second disk in our GeoPak selection. Full documentation is included. Two disk sides containing, amongst others: Mah Jong, DB Getfile, Fontloader, etc.

\$5

CN GEOPAK 128

A double sided collection of GEOS PD exclusively for the 128

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ENTERTAINMENT ADVENTURE DISK #1

The first of our adventure collections.

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ADVENTURE DISK #2

The follow up to the successful Adventure Disk #1 for the many adventurers out there

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INTERCHANGE 64 and INTERCHANGE 128

Two disks devoted to specialised programs to help the translation of documents or graphics from other computer systems to the C64 and the C128 respectively.

Sold separately at \$5 per disk for subscribers, \$7.50 non-subscribers.

DEMO GRAPHICS TOOL DISK

A collection of tools for the budding (and experienced) demo artist.

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DESOTO UTILITIES

An excellent multi-drive operating system for the C64. Handles 1541, 1571, 1581, CMD HD, and RAMLINK in any combination - EXCELLENT!

\$5

PRINTSHOP GRAPHICS GRAFIX GALORE

Tom Stoehre

Subscribers to LoadStar will be familiar with Tom's Work. This collection is priced at \$10.95 and comes recommended.

SAMMANTHA'S GRAPHICS

By Sammantha Hayhoe

Looking to add a touch of Australiana to your printed output? Here is a collection of true blue graphics for PrintShop users.

\$5

NEW! - SAMMANTHA'S GRAPHICS II

By Sammantha Hayhoe

52 new true blue Oz graphics and 67 brand new borders!

VIDEO SHOP

A multi featured graphics manipulation program capable of working with Print Shop, PrintMaster, Doodle, Koala and standard bit-map graphics. Comes complete with a disk of graphics and a disk of fonts and a detailed manual.

\$12.50

ACCESSORIES

MOUSE MATS - \$4.95 each

I now have a range of no-name diskettes in both 5 1/4" and 3 1/2" formats

5 1/4" DS/DD - \$5.50 per box(10) \$50 per 10 boxes(100)

5 1/4" DS/HD - \$10.50 per box(10) \$95 per 10 boxes(100)

3 1/2" DS/DD - \$10.30 per box(10) \$88 per 10 boxes(100)

3 1/2" DS/HD - \$16.50 per box(10) \$150 per 10 boxes(100)

Disk Labels with write protect tabs - 100 for \$2

PUBLICATIONS

Commodore Network is now carryin a range of publications for the Commodore 8-bit enthusiast. Prices quoted below are for non-subscribers. Subscription holders to CN are entitled to deduct 10% from prices quoted.

Cee-64 Alive! - American disk based magazine for the C64/128. Latest edition consists of six disk sides. Issued six times a year and available for just \$35.00
Sample Disk - JUST \$4.00

Commodore World - CMD's latest venture into the realms of Commodore 9-bit support. Paper based and averaging around 50 pages an issue, this publication will appear 8 times a year - \$76.00
Single Issues \$10.50

Bargain Pack - **Subscriptions to Commodore Network, Cee-64 Alive! and Commodore Network**, all in one convenient once-a-year payment - **ONLY \$132 - WHAT A BARGAIN!**

Back Issues

All previous editions of Commodore Network are available at a cost of \$3.50 each, post/packing inclusive within Australia. Foreign Subscribers should remit \$4.50 Australian per copy. Past Disk-Covers are also available at \$2.50 within Australia and \$3.50 Australian each Overseas.

All software orders within Australia should include \$2 to cover postage costs. New Zealand orders add \$3 Aus. to cover postage, and for orders from elsewhere, a postage fee of \$5 Aus. is necessary.

Diskette Orders should include postage of \$2 and 50cents per disk box within Australia, New Zealand Diskette Orders should include \$3 plus 50 cents a disk box per order. Sorry we cannot accept orders for diskettes from elsewhere.